

A. I. Varyash

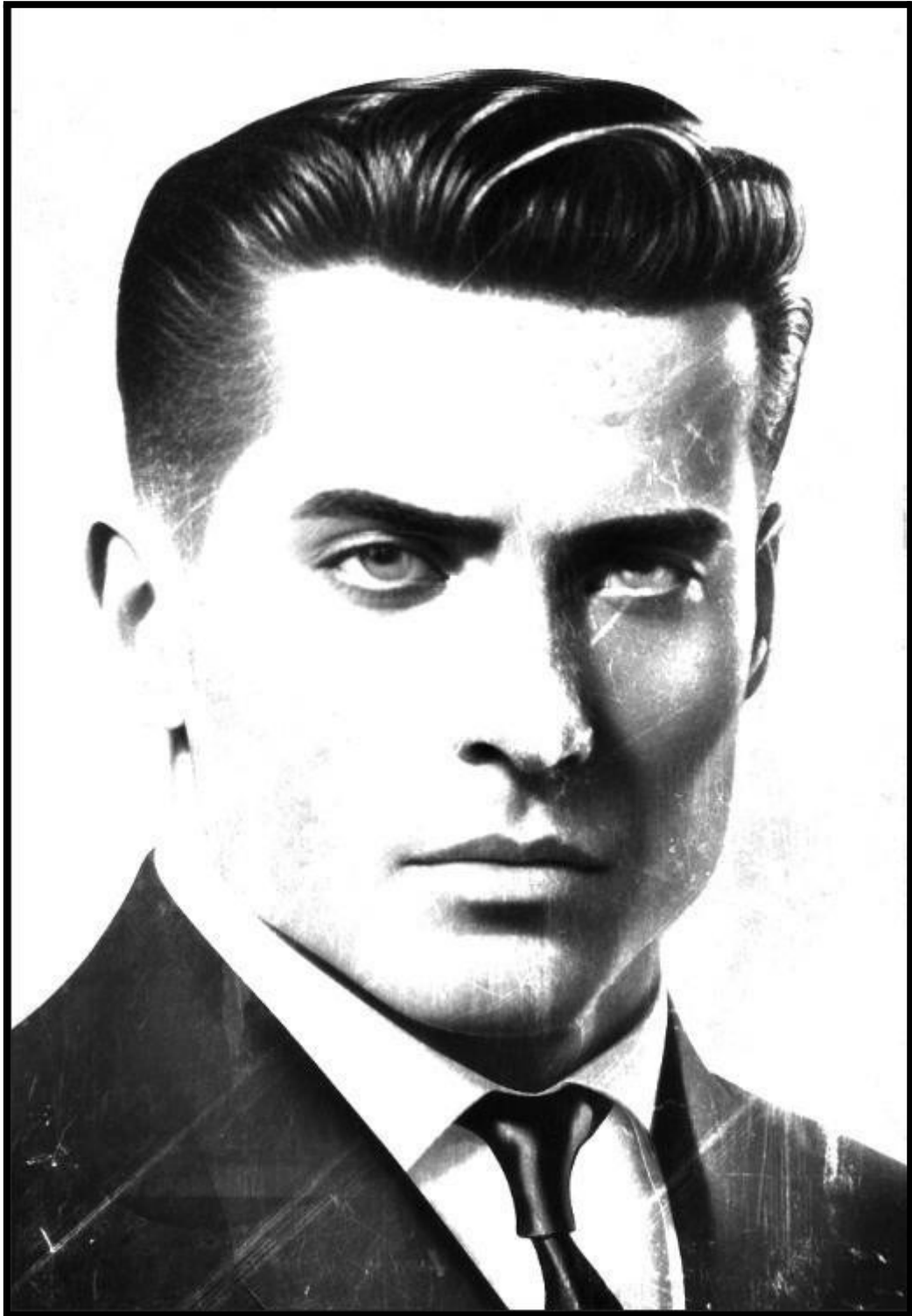
LENIN'S DIALECTICS

**A POPULAR EXPLANATION OF THE PHILOSOPHY OF
DIALECTICAL MATERIALISM BASED ON LENIN'S
WRITINGS**

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A. I. Varyash

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FOREWORD ¹

The aim of this book is to provide a popular yet concise overview of the fundamentals of the philosophy of dialectical materialism, drawing on the writings of Lenin. The author believes that a work of this kind will be useful to those who, without being specialists in philosophy, wish to familiarise themselves with the main issues of philosophy and, first and foremost, with the philosophy of dialectical materialism. The author wrote this book with the reader in mind, possessing a basic knowledge of Marxism-Leninism, roughly to the extent to which it is taught in Marxist study groups that do not specialise in philosophy. For this reason, the author has carefully avoided the use of unnecessary philosophical terms. However, as it proved impossible to do without certain technical terms, he has not assumed the reader is familiar with them, but has explained them in simple, accessible language. Furthermore, to make the book easier to read, the author has included a brief glossary providing an alphabetical explanation of the terms he has used. This, it is to be hoped, will be useful, as it will save the reader time by sparing them the need to flip back through the book every time they forget the meaning of an expression that has already been explained.

Our literature contains a number of popular expositions of Leninism, including some that can serve as guides in party schools. But there is as yet no popular book setting out the fundamentals of the philosophy of dialectical materialism based on Lenin's writings. Meanwhile, this is an urgent task. A full grasp of Leninism cannot be achieved without at least a brief acquaintance with the method by which Lenin worked, the method of dialectical materialism. Consciously mastering this method enables Leninists to raise their understanding of Leninism to a higher level, to comprehend Lenin's analyses in relation to the method by which Lenin conducted his research.

The criterion of truth in Marxist philosophy is practice. It was this very revolutionary practice that gave a brilliant

¹ This edition makes minor changes to the punctuation and layout of the original book. (Ed.)

confirmation of Marxism-Leninism. The workers' state lives, grows stronger and expands. Lenin's application and development of Marxism in the era of imperialism and the proletarian revolution, and the ever-growing might of the first proletarian state, are the best proof of its truth.

On the 10th anniversary of the October Revolution, the author dedicates his book to the heroic Russian proletariat, which has devoted all its strength to the colossal task of building socialism – a new, better world, a world of happiness for all humanity.

The author.

Moscow, 20 March

1927

INTRODUCTION

Lenin is a figure of world-historical significance. He was not only a great practitioner, a recognised leader of the revolutionary proletariat throughout the world, but also a great thinker and theorist of Marxism. The proletarian revolution differs from all previous revolutions in that it cannot succeed without a strictly scientific worldview in general, and without a scientific understanding of history and politics in particular. Marxism is a science that provides a guide to action. But for Marxism to serve as an effective guide, it must be studied as a science. 'Marx's doctrine,' Lenin said, 'is all-powerful because it is true.' Lenin was not only a brilliant Marxist in practice, but also the greatest disciple of Marx and Engels, capable of developing and enriching Marx's doctrine. He succeeded in combining the qualities of a great revolutionary and a universal thinker, encompassing a vast range of sciences. He not only enriched Marxism with invaluable works in the fields of economics, politics, and the strategy and tactics of the proletarian revolution, but at the same time managed to assimilate the achievements of modern natural science, rising to the level of independence in the discussion and philosophical assessment of the monumental results of the past decades in this field.

No one, like Lenin, was able to perceive so clearly and express so convincingly the social roots of the most diverse phenomena of human culture, of every achievement in the fields of philosophy and natural science. In his work 'Materialism and Empirio-Criticism', he demonstrates with remarkable clarity, and proves with countless examples, that throughout the entire course of the development of philosophy there have been only two fundamental currents: materialism and idealism. He mercilessly attacks bourgeois professors for their reactionary sermons and all those who fall for their tricks. He ridicules in every way all those who proclaim new and new 'directions', 'systems' and 'little systems'. Lenin most vividly proves the utter futility and groundlessness of these aspirations. He exposes all attempts to avoid choosing between the only real directions, between materialism and idealism. There are and quite a few professors, representatives

of the bourgeoisie who maintain that materialism and idealism are equally untenable, not 'scientific'. But, — says Lenin, — despite the professors' pompous posturing, they merely try to evade the issue, using empty words to shirk the first duty of any consistent thinker: to state clearly and unequivocally whether he wishes to be a materialist or an idealist. The assertion that the recognition of only two consistent schools in

philosophy—materialist and idealist—is outdated is nothing but a shrill platitude. This distinction, this fundamental division between the two lines of development in philosophy, can never become outdated; it is the only one. Of course, Lenin in no way disputes that both materialism and idealism have undergone a long process of development and that both schools contain a number of variations, offshoots and nuances. But this in no way contradicts the fundamental truth that, apart from these two fundamental schools, no other school exists. Anyone who imagines that they have invented a 'new' system that is neither idealism nor materialism has merely concocted an eclectic mishmash, even if they are not aware of it.

'The genius of Marx and Engels,' says Lenin, 'manifested itself, among other things, in the fact that they despised Hegel's play with new buzzwords, abstruse terms and cunning "isms", and spoke simply and plainly: there is a materialist and an idealist line in philosophy, and between them various shades of agnosticism. Attempts to find

a 'new' point of view in philosophy is characterised by the same poverty of spirit as the attempts to create a 'new' theory of value, a 'new' theory of rent, and so on' (Lenin. Collected Works, Vol. 10. p. 118). 'A person is judged not by what he says or thinks of himself, but by his deeds. Philosophers must be judged not by the labels they hang on themselves ("positivism", the philosophy of "pure experience", "monism" or

'empirio-monism', 'philosophy of natural science' and the like), but by the way in which they actually resolve fundamental theoretical questions, with whom they go hand in hand, what they teach and what they have taught their pupils and followers' (Vol. 10, p. 180).

Marx and Engels were clearly aware that there were only two currents, and thanks to this they were able to develop 18th-century materialism, and to develop it precisely into dialectical materialism. The old materialism was

is anti-dialectical. Having studied the dialectic of Hegel, that great idealist of the nineteenth century, Marx transformed it into a materialist dialectic and created the most profound form of materialism that has ever existed—dialectical materialism. He also developed the theory of historical materialism, thereby turning history into a genuine science. But Marx and Engels, writes Lenin, mercilessly dismissed... countless attempts *to 'discover' a 'new' line in philosophy, to invent a 'new' direction, and so on. The verbal nature of such attempts, the scholastic game of new philosophical 'isms', the obscuring of the essence of the question with contrived artifices, the inability to understand and clearly present the struggle between two fundamental epistemological trends — this is what Marx and Engels pursued and denounced throughout their entire activity'* (Vol. 10. p. 284).

The aim of the author of this book is to provide a generally accessible exposition of the philosophy of Marxism as developed by Lenin, and to highlight the new elements he introduced into it, thereby enriching Marx's philosophy. The author has endeavoured to present this doctrine in a concrete form, that is, on the basis of concrete material, namely on the basis of those classic applications found in Lenin's writings. Philosophy is for the most part expounded in the abstract. Abstract propositions are often detached from real life, in which they ought to be revealed and realised. The author has set himself the task of setting out the dialectical doctrine, Marxist dialectics, in concrete terms, on the basis of problems in history and the natural sciences, on the basis of those problems which Lenin elaborated.

The aim of this book is therefore to present Lenin's doctrine in terms of its dialectical structure. Of course, it is quite impossible to cover this vast body of thought in full within a small book. The author has taken only the main lines and the most pressing problems, and has endeavoured, on the basis of this material, to characterise materialist dialectics and present it in action.

I.

SCIENCE AND REVOLUTION

What is science?

The history of humanity is a constant and ever-unfolding struggle to master nature and its social relations. In this struggle, humanity has constantly acquired and accumulated ever-new knowledge. Without such an accumulation of knowledge, necessary for the successful struggle for existence, humanity could not have reached its present level of development and could not have survived at all.

This thousand-year journey has been a zigzagging one, not a straight upward line. At all times, people instinctively strove to meet their basic needs as best they could, and this compelled them to acquire ever-new knowledge. It is no wonder that this knowledge, arising from the desire to satisfy basic needs, related to those phenomena of the surrounding reality that most directly affected their living conditions. The earliest forms of knowledge were experiences relating to the procurement of food, the treatment of illnesses, the determination of the seasons, and the development of means of self-defence against wild animals and invading enemies.

During the course of millennia, humanity has indeed accumulated a vast amount of isolated knowledge. But isolated knowledge is only for truly satisfaction of life's needs only at a low stage of human development. Approximately three and a half thousand years ago, a period of history began which marked a radical turning point in the development knowledge. This turning point took place among the peoples living on the the eastern part of the Mediterranean: among the Egyptians and, somewhat later, among the Phoenicians and Greeks. A mass of unconnected, separate bits of knowledge began to organise itself more and more into more or less coherent systems. Thus, the individual sciences arose. However, the sciences of that time did not yet constitute truescientific fieldsin the modern sense of the word. They had not yet been consciously distinguished from one another, but were separate branches of a single science

— philosophy. In the early stages of its development, philosophy did not mean what it does today. Ancient philosophy encompassed all significant fields of knowledge. Philosophy included arithmetic, geometry, astronomy, medicine, and so on. Yet even the ancient peoples could not be content

separate, disjointed, positive knowledge. On the basis the empirical truths they had already acquired, they began to ask themselves questions of a general nature concerning the surrounding natural world, on the one hand, and their own nature, on the other. One of the first questions of a general nature was: what is the world made of? Later, this was joined by questions such as: what does life mean, and what is thought? In the ancient thinkers (Thales, Anaximander, Heraclitus, Pythagoras, Zeno, Democritus, Anaxagoras, etc.) we find more or less clear answers to these questions.

The history of the development of human thought shows us that the natural inclination of human thinking is materialism. Based on direct observation of the phenomena unfolding before their eyes, people came to the conclusion that all the phenomena they observed were material phenomena, i.e. phenomena of matter. The observation and study of material processes gave them reason to develop the first natural concepts, namely motion and change. Thales asked himself: from what did the world arise? And he was not content merely to state that nature is material, but sought to define the essence of matter more precisely, saying that the world arose from water. Other thinkers, the immediate successors to Thales's philosophical thought, put forward different solutions. Some suggested that the world arose from air, others that it arose from fire, and still others that it originated from the earth. Anaximander arrived at the idea that the world arose from an indefinite chaos. However much the opinions of these ancient thinkers may have differed, we can observe that to all of them, nature appeared to be material.

Heraclitus also gave voice to the observation that constant change is at work both in nature and in the rapidly shifting social and political order. He was the first dialectician. He argued that nothing in nature is unchanging, immovable or static; everything flows, everything changes. One cannot step into the same river twice, for

the river flows and at every subsequent moment consists of different water.

Democritus is regarded as the culmination of early, materialist philosophy. He lived in the 5th century BC, at a time when another school of thought in philosophy—the idealism of Pythagoras and Plato—had already emerged. Therefore, he can no longer be called a spontaneous materialist, for he set his materialism in opposition to idealism. Democritus taught that the visible world consists of separate, invisible, extremely small, and further indivisible particles—atoms—which are materially homogeneous but differ from one another only in their forms. Some of them are cubic, others spherical; some are smooth, others rough. They are joined together by means of hooks on their surfaces. Democritus consistently applied this materialist idea and proclaimed that, apart from atoms and their combination and movement in empty space, nothing else exists. He also sought to explain mental processes, the arising of sensations, perceptions, and even human passions on the basis of his atomic theory. Thus, for example, he explained fear, love and hatred by the fact that special smooth, small and spherical atoms, when joining together, give rise to these mental phenomena.

We have already pointed out that philosophy, although it encompassed the entire body of human knowledge at that time, was not content merely to accumulate it, but sought to draw general conclusions from it, that is, to generalise it.

Thanks to the emergence and growth of trade between the tribes of the Mediterranean, as well as within individual countries, and thanks to the development of agriculture, two sciences began to flourish, representing a vital tool in trade and agriculture: arithmetic and elementary geometry. It was Thales, in fact, who, according to tradition, was the first to prove certain fundamental theorems of plane geometry (planimetry). Pythagoras discovered his theorem concerning the ratio of the sides of a right-angled triangle. Having initially obtained this ratio, no doubt through experimentation, by directly measuring the sides of the triangle, he proved this truth in a general form. Thus arose the first beginnings of a special method, differing from simple empirical

observation: the method of rigorous proof. This success made a profound impression on Pythagoras himself, as well as on his pupils and, indeed, on the engineers, architects and so on of his time. Building on his success, Pythagoras made a bold generalisation, stating that the essence of the world consists of numbers, and that numbers form the foundation of the world. Pythagoras' philosophy represents a radical break with previous spontaneous materialist schools of thought: he took numbers, not matter, as the primary foundation. Thus began the development of that branch of Greek philosophical thought known as idealism.

Another impetus for the emergence of idealism came from the shortcomings of the materialism of that time. *'It was unable to make sense of the relationship between thought and matter. The need to resolve this issue led to the doctrine of a soul separable from the body, then to the assertion of the immortality of this soul, and finally to monotheism. Thus, ancient materialism was refuted by idealism, but in the further development of philosophy, this idealism also proved untenable and is refuted by modern materialism'* (Engels, Anti-Dühring).

We shall see that modern materialism—that is, Marxism—is by no means merely a 'restoration of the ancient', but rather adds to the remaining foundations of the latter the entire ideological content of two thousand years of development in philosophy and natural science, as well as the history of those two thousand years themselves (ibid.)...

THE SOCIAL ROOTS OF PHILOSOPHICAL SCHOOLS

The question naturally arises as to why we observe such a remarkable phenomenon, which Engels described as, on the one hand, a negation, but at the same time, to a certain extent, a preservation of old philosophical ideas within the new doctrine that has emerged? The answer to this question is provided only by that philosophy which, in Engels's words, represents a synthesis of the entire two-thousand-year development of philosophy and natural science, namely Marxism. As is well known, to explain the origin and content of the social superstructure, Marx proceeded from a thorough analysis of the structure of the foundation of all social existence upon which the superstructure is built, i.e. from an analysis of economic relations. By

Marxism understands the superstructure to be the totality of all political, legal, ethical, aesthetic and, in general, spiritual phenomena of society. Idealist philosophy, on the contrary, proceeds from the assumption of the independent existence of the latter. From the standpoint of idealism, the human mind possesses from the very beginning, irrespective of any historical stage of social development, certain eternal ideas, and it is not their origin that needs to be explained (for they did not arise at all), but the emergence from them of forms of social, economic and state organisation. Therefore, idealism, in so far as it does not deny the historical continuity of social forms in general, maintains that their continuity by no means implies that social formations have grown out of any material, social conditions, ultimately of an economic nature. The development of ideological phenomena, from the point of view of idealism, is sufficiently explained if we assume that, although our eternal, speculative concepts owe their origin to no external conditions, they were not always realised by us. Consequently, as the human mind advances further and further in its awareness of its speculative, ideal, a priori, eternal heritage,

— and the social formations that succeed one another become ever more complex and refined. It is not the economy that determines social relations and state institutions, but, on the contrary, eternal ideas that determine the state structure and economic relations. The latter, therefore, develop in step with the internal development of human consciousness.

These ideas were dominant until Marx entered the historical stage. They constituted the ideological weapon with which, and in the name of which, the French Enlightenment thinkers—including the materialists and political leaders of the Great French Revolution—fought. This idealistic doctrine of society Marx set his own materialist theory. The basis of social life is the historically given level of the productive forces. The level of human technology, the existence of natural conditions of production, and the relations of production arising from this determine people's consciousness. In legal terms, these are property relations that

correspond to a given stage of development of the material productive forces. Marx referred to the totality of relations of production as the economic structure of society, its real foundation. Marx found a brilliant expression of the fundamental difference that sets his doctrine apart from that of idealists of all stripes: *'It is not people's consciousness that determines their existence, but, on the contrary, social existence that determines their consciousness.'* Based on this principle of the historical life of humanity, Marx succeeded in providing a remarkably precise analysis of all social processes. When studying the history of humanity, it is striking that nations from time to time undergo enormous internal social upheavals, known as revolutions. Where do they come from? Why do individual nations not live in some kind of permanent social formation? Marx answers this question as follows: *'At a certain stage of their development, the material productive forces of society come into conflict with the existing relations of production, or, to use a legal term, with the property relations within which they have hitherto operated. From forms of development of the productive forces, these relations become their fetters. Then comes the era of social revolution. With the change of the economic base, the entire vast superstructure built upon it is transformed more or less rapidly.'* And what does the superstructure consist of? *It is the totality of 'ideological forms, in which people perceive in 'in their consciousness, and for the sake of which they are fighting'.*

Here is the precise answer to this question regarding the relationship between the superstructure and the economic base. The superstructure encompasses all ideological forms, including science and philosophy. The latter, too, did not spring from the human mind or from the intellectual activity of individual geniuses, independently of the real connection with that material base of which Marx speaks. We shall attempt to demonstrate this truth using the example of the development of science; that is, we shall show that this development is determined by the level of society and by the contradictions of the given social order, which compel people acquire knowledge. Idealist historians are unable to grasp this. But the question arises: why is it that humanity, needing a solution to social conflicts, finds a path to

the discovery of truths that lead to the satisfaction of this need? Marx provides an exhaustive answer to this:

'Humanity always sets itself only such tasks as it can solve, since on closer inspection it will always turn out that the task itself is only set when the material conditions necessary for its solution already exist, or when they are at least in the process of coming into being.'

The superstructure is the sum total of ideological forms through which people perceive in their minds the conflict between the forces of production and the relations of production, and in the name of which they struggle. This definition by Marx provides a scientific explanation for the emergence of ideology and its—often highly mediated—dependence on the economic base. Science and philosophy are part of ideology. Yet it seems to follow from this definition of ideology that it cannot be a correct, accurate reflection of reality. Is science merely a tool for understanding and resolving social conflicts? Marx understands ideology in two ways: broadly, on the one hand, and narrowly, on the other.

In the broad sense, ideology—the dependence of its emergence and content, ultimately, on economic foundations—means that science, in its development, is determined by socio-economic relations. The problems of science do not arise for no reason or by chance, but are placed at the forefront of humanity's aspirations only if it can resolve them, that is, when the material conditions necessary for their resolution already exist, or at least when these conditions are in the process of emerging. It follows from this that science is not only capable of accurately reflecting reality, but it necessarily follows from the fundamental tenets of Marxism that it is always a more or less accurate reflection corresponding to reality itself. Otherwise, humanity would be unable to utilise it at all for the purpose of solving its historical tasks.

But ideology has another meaning as well. Modern humanity (at least its cultured section) lives in a class society. In every class society there is a ruling class and an oppressed class. Class rule means monopolistic control

by a particular class over the decisive natural resources, the means of production, and the knowledge of how to utilise them. Therefore, it needs science as a correct guide to production. On the other hand, there is never peace in a class society, for the ruling class has never succeeded and never succeeds in achieving the complete subjugation of the oppressed classes. In other words, there is always class struggle in a class-based society. In order to consolidate and maintain its power, the ruling class is compelled to use all the means at its disposal in this bitter struggle. These means include instruments of physical coercion, namely the army, the bureaucracy, the police, prisons, etc., as well as means suited to more subtle forms and methods of oppression and exploitation, such as religion, legal and ethical norms, etc.

It is only natural that a discipline such as philosophy is unable, and cannot be able, to free itself from the powerful influence exerted upon it by the fact that it has developed within a class-based society and in the hands of its representatives the ruling class.

The ruling ideas (i.e. the prevailing collective ideology), as Marx so brilliantly put it, have always been the ideas of the ruling class. It is hardly surprising that such a philosophy, which deals with the most general questions—questions closely touching upon the vital interests of the ruling exploiting class—cannot reflect reality accurately and truthfully, not least because this class is compelled to use it for its own class purposes, for the purposes of exploitation.

But it does not follow from this that the entire content of philosophy is a lie. In the history of human culture, the ruling classes have changed repeatedly. The former masters of the social order have repeatedly been forced to relinquish their dominant role in production and state power. But this change by no means took place painlessly, but through immense, protracted and bloody revolutionary processes, which have marked the great and indeed most significant epochs of human history. The victorious class that emerged, having become the vanguard and thus expressing the interests of the development of all humanity, was compelled to wage a protracted struggle and undertake long-term preparation to seize

power and to wrest it from the obsolete, decaying ruling class. This struggle, in turn, always took place through the use of all means, including both physical coercion and ideological preparation. The latter took the form of putting forward its own worldview, opposed to the old one. Thus, although successive ideologies are distorted reflections of conflicts, they nevertheless represent the very interests of the struggle. The struggle compelled the ideologists of the revolutionary class to refine new principles and, in accordance with their class significance, to apply them to reality itself.

It is therefore essential to draw a clear distinction between the ideology of the new, revolutionary class and that of the old, obsolete ruling class. The ideology of the French bourgeoisie during the preparation of its revolution (from the mid-18th century) was revolutionary and materialistic. It declared a merciless war against the outdated, clerical, idealistic ideology, against the theology reflecting the views and interests of the decaying feudal class. It was therefore hostile to all metaphysics and theology. Yet, on the other hand, it was itself metaphysical, for it recognised materialism only in the realm of nature, whilst remaining idealistic in the realm of political and, indeed, social matters. It was, in Engels's words, materialistic at the bottom and idealistic at the top.

If this is the case, the question arises: what, of the content of previous philosophical systems, must we discard, and what can we retain and incorporate into our own worldview? Engels thus answers to this question:

'Dialectical materialism is no longer philosophy at all, but simply a worldview, which is confirmed and manifested not in a special science, but in the actual sciences. Consequently, philosophy is here abolished, i.e. it is at the same time 'surpassed and preserved'; it is surpassed in all its form, but preserved in its actual content.' All that remains of philosophy is formal logic (the so-called formal theory of thought) and dialectics. The famous German Marxist Mehring characterises this process in the following words: *'Philosophy is a class-determined by struggle*

ideological phenomenon, one of those ideological forms in which people become conscious of this struggle, in which they resolve it. There was no philosophy until there were class antagonisms. Just as there will be no philosophy in the historical sense of the word as soon as class contradictions are eliminated. Only the history of class struggle introduces distinctions and boundaries into the seemingly boundless chaos of philosophical systems."

The class nature of all ideology, including philosophy, becomes most evident when one examines the connection between idealism and religion. Philosophy grew out of the class struggle; it is its ideological product. Therefore, there can be no question of it being objective on matters concerning the rule of the oppressing class. To put it more accurately, it cannot be classless or non-partisan. Philosophy has always been, is, and will remain until communism is achieved, one of the instruments of the class struggle, the struggle of the parties. Therefore, as long as parties exist, it cannot but be partisan. Here is what Lenin writes on this matter (he is referring to the critique of empirio-criticism as a reactionary worldview). ***'Behind the epistemological scholasticism of empirio-criticism, one cannot fail to see the struggle of parties in philosophy, a struggle which, in the final analysis, expresses the tendencies and ideology of the hostile classes of modern society. Contemporary philosophy is just as partisan as it was two thousand years ago. The contending parties at the , masked by Hegelian-charlatanish new slogans or feeble non-partisanship, are materialism and idealism. The latter is nothing a refined, sophisticated form of fideism, which stands fully armed, commands vast organisations, and continues to exert an unceasing influence on the masses, exploiting to its own advantage the slightest wavering of philosophical thought. The objective, class-based role of empirio-criticism boils down to serving the fideists²) in their struggle against materialism in general and against historical materialism in particular'*** (Collected Works, Vol. 10. 'Materialism and Empirio-Criticism', p. 303). Elsewhere, Lenin writes as follows on the non-partisanship in philosophy: ***'Non-partisan people in***

² Fideism is a doctrine that substitutes faith for knowledge or, in general, attaches a certain significance to faith (ibid., p. 6).

philosophy — just as hopeless dead ends as in politics” (ibid., p. 240).

THE SIGNIFICANCE OF REVOLUTIONARY THEORY IN THE REVOLUTIONARY MOVEMENT

From Lenin’s words we understand that partisanship is not only not reprehensible, but is in fact an absolute necessity for anyone wishing to be consistent. And this is so because, as we shall see, apart from the two fundamental currents, idealism and materialism, there is no other at all. All intermediate ‘currents’ are merely vacillations between these two. *‘Marx and Engels,’* says Lenin, *‘were party-minded in philosophy from start to finish; they were able to identify deviations from materialism and concessions to idealism and fideism in all manner of “newest” trends... That is why they reproached Feuerbach for not carrying materialism through to the end, — for renouncing materialism because of the errors of individual materialists, — for waging war on religion with the aim of reviving or inventing a new religion, — for failing to rid himself of idealist phrases in sociology and become a materialist’* (ibid., p. 287).

The question arises: why is partisanship necessary in philosophy as well? This is how Lenin justifies it: *“Realists” and the like,*

— all this is a pitiful mishmash, a despicable middle-of-the-road faction in philosophy, which confuses the materialist and idealist tendencies on every single issue. Attempts to break away from these two fundamental currents contain nothing but ‘conciliatory charlatanism’” (ibid., p. 288). Lenin, referring to Engels, explains the origin of this vacillation. He declares such a half-hearted approach to philosophical problems *“at best a philistine trick of secretly smuggling in materialism whilst publicly denouncing and renouncing it”* (ibid. pp. 287). Many natural scientists belong to the ‘middle party’. Why is this so? Because, by the very nature of their specialism as natural scientists, they cannot but acknowledge the existence of an external, material world independent of human consciousness, for it would be absurd to deny matter to one who is engaged in investigating its properties and laws. On the other hand, natural scientists in

The vast majority of them are members of bourgeois society. They derive their academic posts and ranks from that society. It is therefore difficult for them to admit to being materialists, and many seek a way out of this impasse by means of pitiful reservations. Lenin is quite right to demand that every thinker define his attitude towards the two fundamental philosophical currents quite clearly and unambiguously. In the present era of intensified class struggle between the proletariat and the bourgeoisie, the bourgeoisie has, naturally, cast aside its revolutionary past and, with it, its former materialist worldview. It cannot help but foster eclectic, half-hearted philosophical 'schools' or simply defect to the camp of fideism and theology. Therefore, every consistent thinker can and must choose between consistent materialism and consistent idealism. There is no third option. A choice between them is mandatory.

Lenin mercilessly rails against philosophical eclectics and denounces idealism as a cover for clericalism and obscurantism. But, as a Marxist, he by no means forgets the well-known historical legitimacy and social conditioning of idealism. *'Clericalism (philosophical idealism),'* wrote Lenin, *'certainly has epistemological roots; it is not groundless; it is, undoubtedly, a dead branch, but a dead branch growing on the living tree of living, fruitful, true, mighty, omnipotent, objective, absolute human knowledge'* ('Under the Banner of Marxism', 1925, Nos. 5–6).

Lenin, the greatest of revolutionaries, did not in vain fight with all his immense temperament against all ideological deviations, against every attempt to falsify the unified, coherent Marxist worldview. Through the experience of the proletarian revolutionary movement, he demonstrated the paramount importance of correct theory in guiding the class struggle. In the same way, through experience, he became convinced of the harmfulness, and now also of the counter-revolutionary nature, of all non-Marxist philosophical currents. Idealism leads to clericalism. Clericalism, in turn, is capable of diverting the proletariat from its historical mission and paralysing its class energy, which is necessary for it to fight its countless enemies. Lenin is fully aware that,

that no theory could be truly effective in the struggle for the liberation of the working class unless it were correct. *'Marx's doctrine is all-powerful,'* he says, *'because it is true. It is complete and coherent, providing people with a comprehensive worldview that is irreconcilable with any superstition, any reaction, or any defence of bourgeois oppression. It is the legitimate successor to the best that humanity produced in*

the 19th century in the form of German philosophy, English political economy, and French socialism' (Collected Works, Vol. 12, Part 2, p. 55). Marx's theory provided the guidance the proletariat needed to successfully resolve its great task, for it is thoroughly revolutionary.

'The world's greatest liberation movement of the oppressed class,' says Lenin, *'the most revolutionary class in history, is impossible without revolutionary theory. It cannot be invented; it grows of its own accord from the sum total of revolutionary experience and revolutionary thought in all the countries of the world. And such a theory has grown since the second half of the nineteenth century. It is called Marxism. One cannot be a socialist, one cannot be a revolutionary Social Democrat, without participating to the best of one's ability in the development and application of this theory'* ("Against the Current", p. 274).

Such a high regard for correct theory becomes quite clear if we consider that revolutionary Marxism differs from the half-hearted 'Marxism' of the Second International precisely in that it provides a scientifically accurate, objective analysis of all complex social processes and reveals the laws of their evolution. At the same time, this assessment does not overlook the fact that the emancipation of the proletariat is not some mechanical consequence of the operation of socio-economic laws. It requires and presupposes the revolutionary initiative of the most organised section of the proletariat, the proletarian party itself, as the leader of the exploited masses in their class struggle. The ideological representatives of social democracy have transformed Marxism—that thoroughly revolutionary and effective worldview—into bourgeois liberalism and reformism, and have striven in every way, and are striving now more than ever, to turn it from a theory of revolution into a theory of evolution. Kautsky and Bauer now regard Marxism almost exclusively as a theory proving that the downfall of capitalism is 'inevitable, sooner or

'too late' is inevitable. From this they draw the absurd conclusion that we need not strive for revolution, since final victory is assured in any case, even without an armed uprising. However, no social formation based on class division has ever disappeared of its own accord, nor will it ever vanish from the historical stage. Consequently, capitalism will not disappear unless the proletariat overthrows it. This is why Lenin considers the task of imbuing the masses with the Marxist worldview to be of such vital importance.

This raises the question: why is this process of revolutionising the proletarian masses proceeding so slowly, as if at a snail's pace? Why does the class consciousness of significant sections of the proletariat lag so far behind revolutionary reality? We live in the era of monopoly capitalism, i.e. imperialism, in the period following the First World War, when one section of the proletariat succeeded in overthrowing the capitalist yoke. Yet we see that the proletariat in all the advanced countries of Western Europe has still not carried out its revolution. We see that in Germany, the classic country of the proletariat's class organisation, the revolution has failed. Objective, social circumstances have, of course, played and continue to play a decisive role in this protracted and agonising process of class struggle. In Germany, just as in England and France, the level of development of the productive forces had already fully ripened for a radical transformation of the economic system. However, German capitalism was saved after its defeat by the fact that it managed to conclude an armistice even before the final rout of the Kaiser's army. Another important reason for the failure of the German revolution lies in the fact that the class organisation of the proletariat, in the form of the Social Democratic Party, had been undergoing a process of radical degeneration from the very outset of the war, through its leaders, who had gone over entirely to the camp of the imperialist bourgeoisie. These leaders had retreated from socialism to opportunism and had reached the point of social-chauvinism. Thus, at the decisive moment, the proletariat found itself disarmed by its own leaders. The revolution was drowned in a fratricidal struggle between the revolutionary, conscious proletarians and the Social-Democratic 'government of their own people'.

For the proletarian revolution to succeed, it is essential that, at the moment of decisive struggle and in the crucial areas, the majority of the population stands with the revolutionary proletariat. But this is impossible without a party to lead the struggle. The majority of the people—oppressed, downtrodden, and worn down by centuries of exploitation—need leadership.

'People,' says Marx, 'though they make their own history, do so not in a free choice of circumstances. The legacy of the dead past, like a nightmare, weighs upon the minds of the living' (Marx. The Eighteenth Brumaire). To free them from this nightmare is one of the most important tasks of the conscious section of the proletariat. But to do this, one must possess the correct revolutionary theory. Such a theory was provided

by Marx and Engels and was further developed by Lenin.

Marx and Engels, active from the 1840s, could base their generalisations only on the experiences of the proletariat's struggle in France in 1848, on the experiences of the revolutionary wars of liberation in Germany and Italy, and on the experience of the Paris Commune of 1871. This period was one of the formation of national, capitalist states and the mass industrial proletariat. This is the phase of the classical era of capitalism. From the late 19th and early 20th centuries, capitalism entered another—and final—phase of its development: the imperialist phase. Marx and Engels, of course, could not have foreseen all the features of this new phase, although in broad terms they quite correctly foresaw and predicted its inevitable advent.

Lenin is the reviver of Marx's revolutionary doctrine—that is, precisely the doctrine that was glossed over by the theorists of the Second International. But Lenin is not merely the restorer of Marx's authentic doctrine. He is also its culminator, for he drew conclusions that proved correct in the new phase of capitalism. Therefore, Leninism is Marxism of the era of imperialism and the proletarian revolution. It is particularly important to bear this in mind, because Marx and Engels were able to observe the revolutionary movement of the proletariat, its overthrow of bourgeois rule and the beginning of the organisation of its own state only through the experience of the Paris Commune. This experience enabled Marx to point out the distinctive feature of this new organisation. He correctly characterised it as the dictatorship of the proletariat.

But the actual era of the proletarian revolution inevitably coincides with the final stage of capitalism, i.e. imperialism. Therefore, Marx and Engels were not yet able to formulate a strategy and tactics for the proletarian revolution and the dictatorship of the proletariat. It was Lenin who did this. Consequently, he further developed Marx's teachings.

II.

THE THEORY OF KNOWLEDGE. LENIN'S STRUGGLE AGAINST IDEALISM AND ECLEKTICISM

We recall Engels's definition, according to which only formal logic and dialectics remain of philosophy. Everything else is absorbed into the positive sciences of nature and history. Logic and dialectics constitute the methodology of the sciences. They are not separated from the latter by a Chinese wall; their connection is dialectical. There is no separate philosophy standing above the other positive sciences. But this does not mean that there is no philosophy. On the contrary, it is only thanks to this dialectical connection that it becomes a genuine, fruitful science. But it becomes a genuine science only as dialectics. Dialectics is *'the science of the general laws of motion of both the external world and human thought'* (Engels. L. Feuerbach; Lenin. Karl Marx. Collected Works. Vol. 20. Part 1. p. 474).

From the point of view of Marxism, it has come to be the subject

Philosophy is both the study of the laws of external nature and the study of the laws of human thought. What is thought? Idealists are convinced that thought is a distinct entity existing outside and independent of the rest of material nature. They are convinced that the laws of logic constitute the eternal, indestructible foundation of the world itself. It is not thought that constitutes a part of this world; on the contrary, the world, as an object of cognition, is, in one way or another, a product of the creative activity of absolute, eternal logical laws — the laws of the spirit. Herein lies the fundamental point of contention between materialism and idealism. From the materialist perspective, thought is not something self-sufficient, but is a derivative of a particularly organised, higher form of matter. The material world, nature, is primary; thought is secondary. Such is the materialist viewpoint.

How, then, can we determine who is right? It goes without saying that, since such a fundamental disagreement lies at the very foundation of the worldview, the criterion for determining the correctness of a judgement cannot be the same for idealism and materialism. The idealist seeks this criterion in thought itself. He asserts that, since some concept or

If a judgement satisfies certain conditions, it must be true. These conditions are as follows: 1) the clarity of the relevant concepts; 2) their distinctness; 3) their consistency with one another. By clarity, they mean that property of a concept or judgement which makes it possible to distinguish them strictly from one another. By distinctness, they mean that it is not enough to distinguish two concepts from one another, i.e. to avoid confusing them, but, since a concept is complex, i.e. consists of several parts, it is also necessary to strictly distinguish the parts of each complex concept. It must be noted that the requirement of clarity and distinctness is, of course, an entirely legitimate requirement. It is obvious that no serious scientific work can be done with concepts that are unclear and indistinct. The idealistic nature of the requirement for clarity and distinctness of concepts lies not in the requirement itself, but in the fact that, together with the third condition, it is presented to idealists not only as a necessary but also as a sufficient guarantee of the truth of our concepts. The third condition concerns the requirement of consistency in scientific concepts. Naturally, in a certain sense of the word, the consistency of our concepts and theories is undoubtedly necessary. However, neither any one of these criteria, nor all of them taken together, can be sufficient conditions for the truth of our knowledge. A valid criterion of truth cannot lie in the very nature of thought, for that would mean the control of this thought by itself. Yet idealists regard precisely this point as the strength of their philosophy. Lenin quite rightly points out the main tendency of idealism. Idealists endeavour to derive the laws of nature and the entire doctrine of matter from certain 'a priori' concepts. Materialism, on the other hand, arrives at scientific concepts by abstracting them from the real relations of the material world itself.

'The idealists,' writes Lenin, 'demanded a systematic derivation from pure thought not only of a priori forms of content, but of the whole world in general, stretching human thought to the abstract Self (Fichte. A.V.) or to the absolute idea (Hegel. A.V.), or to the universal will (Schopenhauer. A.V.), and so on' (Vol. 10. pp. 163–164).

Materialism takes the opposite path. The criterion of the truth of our thought cannot ultimately lie within

. One cannot verify the length of a rod without a measure distinct from it, such as a metre or an arshin, etc., or test the functionality of an instrument without precise account of the effect it produces on other objects. In the same way, one cannot find a measure of the correct functioning of our thinking without thorough account of the practical result obtained through this functioning.

It is therefore natural that materialism—and dialectical materialism even more so—cannot be satisfied with these criteria for the correctness of our thinking, but seeks another criterion for its proper functioning, one that is independent of thought itself. This criterion is provided by human practice. *‘To raise the question, outside of practice, of whether objective truth corresponds to human thought is a purely scholastic question,’* says Marx in his second thesis on Feuerbach. *‘The question of whether human thought is capable of cognising objects as they actually exist is by no means a theoretical but a practical question. It is through practice that man must prove the truth of his thinking, i.e. prove that it has real power and does not stop at the surface of phenomena’* (ibid.). Marx rightly reproaches philosophers for the fact that they *‘have merely interpreted the world in various ways; the point, however, is to change it’*.

Lenin fully shares Marx’s viewpoint. *‘The viewpoint of life, of practice, must be the first and fundamental viewpoint of cognition. And it inevitably leads to materialism, rejecting from the outset the endless fabrications of professorial scholasticism’* (Collected Works, Vol. 10, p.

115). However, Lenin, as a great exponent of revolutionary practice, is well aware that practice, too, cannot be an absolute criterion of the truth of any given piece of knowledge. *‘We must not forget,’* he says, *‘that the criterion of practice can never, by its very nature, fully confirm or refute any human conception whatsoever.’* It cannot be turned into an ‘absolute’. However, the question arises: if, as Lenin himself admits, this criterion is not entirely definite, what guarantee is there that it cannot lead us astray? Lenin provides a genuine dialectical answer to this question as well. The criterion of truth must be

'so clearly defined as to wage a merciless war against all forms of idealism and agnosticism'. Is there or an 'absolute' guarantee of the truth of any given piece of knowledge? We do not possess such a guarantee in a ready-made form. It exists only in the minds of idealists, but not in reality. Instead of an absolute guarantee, there is an objective guarantee. It lies in our entire practice. *'The criterion of practice,' writes Lenin, 'that is, the course of development of all capitalist countries over the last decades, proves only the objective truth of Marx's entire socio-economic theory in general, and not of this or that part, formulation, and so on'* (ibid.). In these words of Lenin lies a splendid answer to this question. Any individual human activity, of course, may subsequently reveal certain shortcomings, inaccuracies or errors. Only the whole of practice, i.e. the totality of all humanity's historical activity, can provide an objective criterion for the correctness of the theoretical views by which it was guided. That is why Lenin so insistently demands of anyone wishing to be a Marxist that they seriously study and master the whole of Marx's theory as a whole, and not just this or that part of it. He was an orthodox Marxist and imposed this requirement on all Marxists. He treated with contempt the reproaches from from all kind of revisionist 'half-Marxists' who, on the one hand, wished to be Marxists, whilst on the other — wished 'supplement and refine' Marxism of all kinds borrowings from other systems that are completely incompatible with Marxism. Some of these 'Marxists' accept historical materialism, but do not accept dialectical materialism as a whole, as a coherent worldview. Such eclectics even pride themselves on their superiority, on the 'breadth' of their philosophical outlook compared to the 'narrow' Marxist view of the world. Lenin brilliantly demonstrates that this 'liberalism' of outlook amounts in fact to nothing more than a demand for the freedom to be an eclectic, to pick and choose from two fundamentally opposed philosophical currents whatever suits them, regardless of whether these eclectic fragments fit into a coherent doctrine or not.

It is clear from the above that neither idealism nor half-hearted, eclectic 'systems' can reconcile theory and practice. According to their views, theory cannot be adapted to reality, because reality itself is the result of our thinking. According to Mach's definition, the criterion of truth is the success of our cognition. This success distinguishes cognition from error. Such a definition appears to correspond to the Marxist criterion of practice. But this is only at first glance. Mach does not recognise an external world existing outside and independently of our consciousness. Objects are merely complexes of our sensations. Cognition, meanwhile, is a biologically useful, mental experience. The idealism, rigidity and anti-dialectical nature of such a definition of cognition lies in the fact that it treats 'biologically useful' as well as 'mental experience' (i.e. sensation) as final, unanalysed data. Empirio-criticism owes this definition of knowledge to its fundamental tenet that all our knowledge is based on the principle of economy of thought or, as Avenarius put it, on the principle of the least expenditure of energy. That our thinking strives for economy is beyond dispute. But this 'principle' of economy is devoid of any meaning, since it is taken as a criterion of the truth of knowledge. 'Economy' itself requires a criterion, for there can be no question of any objective economy if we confine ourselves to comparing only our theories without reference to the real processes of which they speak. Lenin correctly poses the question: *'Is it "more economical" to "conceive" the atom as indivisible or as consisting of positive and negative electrons? Is it "more economical" to conceive the Russian bourgeois revolution as carried out by liberals or as carried out against liberals? It suffices to pose the question to see the absurdity and subjectivism of applying the category of 'economy of thought' here. Human thought is 'economical' when it correctly reflects objective truth, and the criterion of this correctness is practice, experiment, and industry'* (Vol. 10, p. 138). From the standpoint of materialism, the criterion of practice is irreplaceable by any other criterion. It alone is capable of distinguishing illusion from reality. Meanwhile, Mach disregards precisely this criterion. *'The criterion of practice, — writes Lenin, —*

“The distinction between illusion and reality, which applies to everyone and everything, is taken by E. Mach beyond the bounds of science, beyond the bounds of the theory of knowledge.” Instead of the criterion of practice, Mach posits the principle of the biological usefulness of our knowledge in the struggle for existence. Lenin quite rightly replies to Mach: ***‘Knowledge can be biologically useful, useful in human practice, in the preservation of life, in the preservation of the species, only if it reflects an objective truth independent of man. For the materialist, the “success” of human practice proves the correspondence of our conceptions with the objective nature of the things we perceive. For the solipsist, ‘success’ is everything that is useful to me in practice, which can be considered separately from the theory of knowledge. If we incorporate the criterion of practice into the foundation of the theory of knowledge, we inevitably arrive at materialism,’ says the Marxist”*** (Vol. 10, p. 112. Our italics. A.V.). On page 156 of the same volume, Lenin, referring to Engels, continues his line of thought and links it to another extremely important question concerning the relationship between freedom and necessity. ***‘For Engels, all living human practice bursts into the very theory of knowledge, providing an objective criterion of truth: as long as we do not know the law of nature, it, existing and acting independently, outside our knowledge, makes us slaves to blind necessity.’*** Once we have discovered this law, operating... independently of our will and our consciousness, we are the masters of nature. ***‘Mastery over nature, as manifested in human practice, is the result of an objectively true reflection in the human mind of the phenomena and processes of nature; it is proof that this reflection (within the limits of what practice reveals to us) is an objective, absolute, eternal truth.’***

In these words, Lenin provides a solution to an extremely important question, linking it to the question of the criterion of practice: this is the resolution of the question of freedom and necessity. ***‘Necessity is blind,’*** Lenin quotes Engels, ***‘only in so far as it is not understood. Freedom does not lie in an imagined independence from the laws of nature, but in the knowledge of these laws and in the possibility, based on this knowledge, of systematically making the laws of nature work towards specific ends’*** (Ibid., p. 154). This applies both to the laws of nature and to the laws of society and the human

spirit. *'Freedom of will,'* teach Engels and Lenin, *'means nothing other than the ability to make decisions with full knowledge of the facts'* (ibid.). The question arises: how is the problem of freedom and necessity linked to the problem of the criterion of truth? They are linked through the fundamental tenet of Marxism: nature is primary, consciousness is secondary. This means that human will is also secondary, for it is a phenomenon of consciousness. What is freedom from Lenin's point of view? It is 'necessity for us'. *'The development of consciousness,'* writes Lenin, *'...shows us the transformation of the "unknown thing-in-itself" into the known "thing-for-us", the transformation of blind, unknown necessity, "necessity-in-itself", into the known "necessity-for-us"'*... The main point of view here and there is one and the same — namely: *materialistic, recognition "of the objective reality of the external world and the laws of the external of nature; indeed, both this world and these laws are fully knowable to man, but can never be fully comprehended by him. 'We do not know the necessity of nature in weather phenomena, and to that extent we are inevitably slaves to the weather.'* But, Lenin asks, *'where does the knowledge come from that things exist outside our consciousness, that is, even when we are unaware of them? 'Ignorance is replaced by knowledge,'* replies Lenin, *'when an object acts upon our senses, and conversely: knowledge turns into ignorance when the possibility of such action is removed'* (Vol. 10, p. 156).

Yet the weather acts upon our senses, and we still do not know its laws! The answer is simple. We can ascertain the laws of some process in nature and society if we are given either the entire process or, at the very least, sufficient data regarding the conditions of that process. This is precisely what is lacking in the example of the weather.

Idealism explains necessity in nature by the necessity of the laws of thought. Materialism explains necessity—that is, the truth of thought—by the fact that it is a reflection of the objective, necessary laws of nature itself.

In conclusion, we can say: idealism seeks to explain the unity of the world from the unity of thought (for example, from the principle of economy of thought). Lenin contrasts this idealist view with the materialist view. He points to Engels's resolution of the question.

'The real unity of the world consists in its materiality, and the latter is proved not by a couple of clever phrases, but by data obtained in the course of the long and gradual development of philosophy and natural science' (Engels. Anti-Dühring. p. 35).

THE THEORY OF REFLECTION

Such a disagreement regarding the criteria of truth is natural between materialism and idealism. Materialism proceeds from the existence—independent of our consciousness— of the external world, of nature, and of matter. Thinking, on the other hand, is a function of a specially organised, higher form of matter. In idealism, the opposite is true: thinking is primary, and matter is a lower form of thinking. Empirio-criticism is a form of idealism, for according to this doctrine, the ultimate, indivisible elements of the world are sensations. Individual, ready-made things are complex combinations, complexes of sensations. For the materialist Lenin, on the contrary, *'sensation is indeed the immediate connection of consciousness with the external world; it is the transformation of the energy of external stimulation into a fact of consciousness... The sophistry of idealist philosophy lies in the fact that sensation is taken not as a connection between consciousness and the external world, but as a partition, a wall separating consciousness from the external world—not as an image of the external phenomenon corresponding to the sensation, but as the only thing that exists'* (Vol. 10, p. 35. Our italics).

'The essence of idealism,' writes Lenin elsewhere, *'lies in the fact that the mental is taken as the starting point; nature is derived from it, and only then is ordinary human consciousness derived from nature. This original "mental" element therefore always turns out to be a dead abstraction, serving as a cover for a watered-down form of theology. For example, everyone knows what a human idea is, but an idea without man and prior to man, an idea in the abstract, an absolute idea, is a theological invention of the idealist Hegel'* (Vol. 10, p. 188).

The question naturally arises as to where such a striking delusion (idealism) comes from. There is not the slightest doubt that the theory of the empirio-critics, just like other theories of idealism (Kantianism, Humeanism, etc.), constitutes an ideological distortion of the actual course

of our cognitive process. Such a distortion is inevitable in a society based on class divisions. After all, in what is the essence of ideology?

'Ideology,' says Engels, 'is a process carried out by the so-called thinking person, albeit with consciousness, but with a false consciousness. The true driving forces that set him in motion remain unknown to him; otherwise, it would not be an ideological process. Man therefore creates for himself a conception of false and illusory driving forces. Since this is a process of thought, man derives both its content and its form from the pure thought of his predecessors. This person deals exclusively with the material of thought; without further ado, he assumes that this material is generated by thought, and does not concern himself with investigating any other process, more remote and independent of thought. Such an approach to the matter seems self-evident to him, since for him every human action is ultimately based on thought, because it is carried out by means of thought' (Letter to Mehring, 14 July 1893).

In these words of Engels there is a clear answer to the question of why thought was elevated to the rank of the primary foundation. The conditions of class society, the ever-increasing division and fragmentation of labour, the transformation of man into a bearer and instrument of the differentiation of the labour process, give rise to a special group of people whose main, almost exclusive occupation is the study of some narrow sphere of phenomena. These people do not see the connections between this sphere of their own activity and all other branches of human practice; they do not think about it. Thus, the idea takes firm root in their minds that thought is something independent of existence, and they fall into the error which Engels so excellently characterised. For such a thinker, all human action is ultimately based on thought, because it is carried out through thought. They readily forget that thought arises from sensation, which constitutes the link between our organ of thought and the external world. Of course, such 'forgetfulness' is by no means accidental. It necessarily arises from the soil of class

society. *'The objective class role of empirio-criticism,' says Lenin, 'boils down entirely to serving the fideists in their struggle against materialism in general and against historical materialism in particular'* (Vol. 10, p. 303). It is true that thought is one of the conditions of our action, but it is not the sole condition of the latter. Thought, with whatever content it may have, arises itself on the basis of material conditions, i.e. ultimately on the basis of human practical activity. Such a connection between activity and thought seems to idealism to be a contradiction, but it is in fact dialectical. (We shall discuss this further.)

Materialism is based on the premise that nature, or the external world, precedes our consciousness. Our sensations arise from the external world's impact on our sense organs. The error of the empirio-criticists lies not in their recognition of sensation, but in their elevation of it to an absolute. They regard sensation not as a link between consciousness and the external world, but as a barrier to the external world. What does 'link' mean? What is the relationship between sensation and the external world? Following Engels, Lenin characterises this relationship as reflection. This means that sensations reflect in our minds external processes that occur independently of those sensations. Sensations (and perception too) are not something alien to matter and its processes. They are 'connected only with the highest forms of matter'.

It is on this point that the idealists believe they have found the 'fundamental error', the 'leap', in the course of materialist thinking. Where, they ask, does matter derive the capacity for thought, and how is non-sensing matter connected with sensing matter? After all, the latter consists of the same atoms that we find outside living nature. How can matter possess such an elusive property as sensation? Lenin openly admits that this question has not yet been fully resolved, and points to the need for further experimental research. Here is what Lenin says: 'Mach seems to blame materialism... for the unresolved question of where sensation "arises" from. This is a prime example of the 'refutations' of materialism by fideists and their hangers-on. Does any other philosophical viewpoint 'resolve' a question for which insufficient data has yet been gathered? Does not Mach himself say in the same

in the very same paragraph: *'as long as this problem... has not been resolved in any specific case, it is impossible to settle this question'* (Vol. 10, p. 30). This means that Mach acknowledges that the question has not yet been resolved at this stage of science, yet he still demands that materialism provide a solution. However, no clever inventions or hypotheses generated by 'pure thought' can replace these painstaking, slow but reliable investigations. Marxism stands immeasurably higher than any idealistic intellectual sophistry on this point as well. It openly acknowledges that this is a question that is far from having been sufficiently investigated , and , and does not seek to evade an answer by means of empty phrases such as that sensation is the final element. Empirio-criticism attempts to wriggle out of this most important question in this way. Anyone who asserts that sensation is the final element of the world, and that no research can go beyond this assertion, does not resolve the fundamental question of epistemology (the theory of knowledge), but evades it. Empirio-criticism does not even seek a solution to this question, because it considers its answer to be exhaustive. In reality, however, its answer amounts to a mere assertion that sensation is the final element, and therefore no explanation can be given for it at all. Empirio-criticism points to the impossibility of deriving sensation from motion—this fundamental property of both living and non-living matter. The idealist maintains that such a derivation is obligatory for the materialist. He reasons as follows: idealism attempts to derive being from thought. Therefore, he concludes, the materialist must derive thought—and, first and foremost, its element: sensation—from the motion of matter. However, it is by no means necessary for materialism to 'derive' sensation. Materialism recognises sensation as *'one of the properties of moving matter'*. (Lenin. Vol. 10. p. 32). *'Matter,'* Lenin continues a little further on (p. 38), *'by acting upon our sense organs, produces sensation. Sensation depends on the brain, the nerves, the retina, etc., i.e. on matter organised in a certain way. The existence of matter is independent of sensation. Matter is primary. Sensation, thought and consciousness are the highest products of matter organised in a specific way. Such are the views of materialism in general and of Marx and Engels in particular'* (Our italics. — A.V.).

The vulgar materialists (Voigt, Büchner, Moleshott) were not mistaken in recognising this elementary truth of all materialism, but in conceiving the task as ridiculously simple and absurd, precisely because they had no understanding of dialectics. They imagined that the brain secretes thought just as the liver secretes bile. Dialectical materialism is very far removed from this sort of vulgar understanding of thought. It insists that sensation is a reflection or a snapshot of external reality by our thinking. It makes a strict distinction between representations and sensations on the one hand, and the external objects they represent on the other. Light, falling on the retina, produces the sensation of light. This means that light constitutes external reality, waves of the ether, i.e. moving matter. The sensation of light, however, does not constitute these ether waves, but rather the result of their action on our sense organs and on our brain.

The idealist Berkeley once posed the question: does our sensation resemble the external causes that materialists take for reality? If, he argued, you, the materialist, assert that sensation resembles reality, then by doing so you acknowledge that the external cause also resembles sensation; that is to say, in essence, it is a sensation. If, on the other hand, we assume that an external cause is not like the sensation it produces, then on what grounds can we claim that our sensations are capable of perceiving the external world? After all, they are not at all like it. The materialist response is as follows: sensation is the consequence of external causes acting upon our senses, and therefore the cognitive process constitutes a special case of the universal law of causality.

According to this law, no process in the world occurs without sufficient causes. If certain conditions are given, they determine their consequence in a necessary and sufficient manner. This law is universal, i.e. there are no exceptions to it. Therefore, the thought process also falls under the principle of causality. The question of whether our perceptions and ideas resemble their external causes (and if not, then the latter — according to Berkeley — cannot be their actual causes) is a special case of the question: does a cause resemble its effect at all? One need only pose the question in such general terms to immediately see the absurdity of the approach to

to this question. The answer to the question of whether our sensations resemble or differ from external causes can only be dialectical. Thought resembles the external phenomenon it reflects in the sense that it is the result of the interaction between the external world and our body. One might answer Berkeley's question with another question: do hydrogen and oxygen, taken separately or together, resemble water? Water is the product of their combination, i.e. their interaction. However, the properties of hydrogen differ from those of oxygen and from those of water. This analogy, of course, cannot be taken as an explanation of thought. The superiority of dialectical materialism over all manner of idealistic contrivances lies in the fact that it endeavours to provide its own answers to the great questions of philosophy, not by inventing them, but by relying on the established findings of empirical research. Non-dialecticians, of course, cannot understand how matter can think, even if it is the most highly organised matter. They simply forget that, if they were consistent, they would have to admit that they ought also to be unable to understand how hydrogen and oxygen—which are not at all alike, nor is the product of their interaction—create water. The fundamental flaw in all non-dialectical thinking lies in the fact that it is incapable of understanding at all how a certain set of real conditions—that is, partial processes—can, through their interaction, produce a result that is entirely 'unlike' or very little like these conditions in the vulgar sense of similarity. The question of the emergence of new qualities (which is what the emergence of thought is) is of immense importance, and we shall deal with it in the chapter: 'Lenin's Views on Dialectics'. It must be emphasised here that the principle of causality can be a real, fruitful means of explanation only if it is not some a priori invented definition, but is abstracted from reality itself. Causality expresses not only the bare assertion that every effect is brought about by a cause, but also that the effect must not be identified with its causes. The non-identification of effects and causes, of course, does not mean that they can exist independently of one another. In reality, there are not cause and effect as

independent entities, but only their mutual interpenetration, in which the cause passes into the effect. No single causal link can be severed from the entire, all-encompassing world process without beginning or end. Within it, every cause represents a transitional moment between the past, present and future. From the perspective of the past, it is an effect; from the perspective of the future, it is a cause.

Such an understanding of causal dependence is the only one acceptable from the standpoint of dialectical materialism. A formal understanding of causality essentially leads to its destruction. Failure to recognise or understand that causal interaction signifies precisely the emergence of qualitatively new processes within the depths of the old system leads to the conclusion that there is no real difference between cause and effect. But this also means the denial of the causal link itself.

Indeed, Berkeley, being a consistent idealist, boldly arrived at this conclusion. He denied not only the existence of matter, but also the objective significance of the principle of causality. It is no wonder that Lenin presents him as a consistent idealist. Having rejected the reality of matter, Berkeley consequently rejected the principle of causality as well. His pointed question regarding the similarity or dissimilarity of our sensations to external causes is precisely intended to demonstrate the irrationality of materialism, to show what 'absurd' consequences arise from recognising matter as reality. In speaking of similarity or dissimilarity, he approached the question in a purely formal manner, understanding this to mean geometric similarity or dissimilarity. He clearly counted on the materialists being unable to extricate themselves from the impasse he had set for them. But he did not consider that he was interpreting the concept of similarity too narrowly, that a cause, passing into a new state—that is, ceasing to be a cause and becoming an effect—is not destroyed in the course of this transition, but is preserved. In this more general and deeper sense, one can speak of the similarities between cause and effect, understanding this to mean the preservation of the cause during the transition to the effect.

Berkeley, moreover, overlooked the fact that our eye is also subject to the laws of lens optics; it is therefore legitimate to speak of a resemblance between the images arising in the eyes and their

cause, for their emergence is also subject to the laws of glass lenses.

The empirio-critics — the inconsistent successors of Berkeley, as well as Hume — proved to be consistent on this point. Mach and Avenarius do not accept the objective significance of the principle of causality. In its place, they sought to substitute the ‘principle of functional dependence’ of elements. They are consistent on this point in that, since elements—sensations—are the ultimate building blocks of the universe, they cannot be derived from anything else, including, of course, one element from another element. For if this were possible, the element being derived would no longer be an element. Consequently, they speak only of the ‘functional’ dependence of these elements on one another. Mah points out that such a functional dependence holds when we are able to express the dependence in mathematical form. In this way, he sought to replace the causal link with a functional dependence in the sense of mathematical equations giving an exact quantitative relationship between the values of the elements.

But this attempt is also extremely unsuccessful. Mathematical expressions cannot replace causal connection. They are merely expressions of the predominantly quantitative aspect of causal connection itself, but by no means anything independent and separate from the overall material process.

We mathematical formulation, but it does not follow from this that in such a case there is no objective law at all. The interaction of material elements is never exhaustive. Here one can achieve a greater or lesser degree of rigour in formulations, but one can never say that we have reached the maximum of precision. Therefore, it is entirely correct to respond Lenin to Mahu:

‘Indeed, the crucial theoretical and epistemological question that divides philosophical schools of thought is not the degree of precision our descriptions of causal relationships have attained, nor whether these descriptions can be expressed in an exact mathematical formula, — but whether the source of our knowledge of these relationships is the objective regularity of nature or the properties of our mind, its inherent capacity to recognise certain a priori truths’ (Vol. 10.

p. 129). The recognition of such a capacity of our mind and the recognition of a priori truths is an important component of idealism in its consistent form.

Empirio-criticism, as a variety of agnosticism, regards materialism as 'metaphysics'. Starting from the 'solely' reliable existence of sensations, refuses to acknowledge anything beyond them. The empirio-critic prides himself on being an empiricist, i.e. on taking only the data of experience as his starting point. All our knowledge derives from experience, i.e. from sensations and perceptions, and there is no such thing as mental data more immediate than the latter. From this, empirio-critics draw the absurd conclusion that it makes no sense to speak of matter and nature existing independently of our experience (sensations, perceptions, etc.). The famous philosopher Kant distinguished between things as they exist in themselves, independently of our consciousness, and phenomena accessible to us through our senses and logical categories. He called the former the 'thing-in-itself', and the latter the 'world of phenomena'. The former is beyond our knowledge. This means that we can know nothing about it, for we cannot know whether the phenomena presented to us through perception reflect any properties of things-in-themselves. Marxists have always referred to this school of thought as agnosticism (a- means 'not', gnosis means 'knowledge'; agnosticism is a theory asserting that we do not know what things are in themselves).

At first glance, it is clear that Kant's philosophy is agnostic, for it denies that reality as it is can be known; yet it is not entirely consistent, because it does, after all, accept the existence of this unknowable reality. Kant even proceeds from the premise that we derive our sensations from the influence of this world, which is independent of us and inaccessible to us. Since Kant admits that there exists outside us something corresponding to our representations, here, as Lenin acknowledges, Kant is a materialist. But *'when he declares this thing-in-itself to be unknowable, transcendent, otherworldly, Kant acts as an idealist'* (Vol. 10, p. 163).

Is there really such an insurmountable barrier between the thing-in-itself and the phenomenon, of which Kant speaks? No, there is not. Kant himself violates his own principle

the impossibility of moving from the thing-in-itself to phenomena, when he assumes that our sensations arise as a result of the thing-in-itself acting upon us. How can one claim that we can know nothing about this mysterious world of the thing-in-itself if, as Kant himself admits, we already know the important truth that the thing-in-itself affects us, altering the state of our body and our sense organs? In reality, there is no such barrier at all. *'In reality,'* says Lenin, *'every person has observed millions of times the simple and obvious transformation of the "thing-in-itself" into a phenomenon — the "thing-for-us"'*. This transformation is knowledge. We find the most vivid expression of this subjective idealist viewpoint in Fichte. He says: 'We see, hear and feel. The result of these processes is sight, touch and hearing. But all of these are merely sensations. Therefore, when we perceive something, we perceive our own sensation and nothing else. It is not some non-existent external objects that are sensed (Fichte denied the existence of the thing-in-itself), but the sensations themselves. In this formulation, the fundamental error of idealism is most clearly evident. Fichte asserts that to perceive does not mean what every person unversed in philosophical intricacies thinks it does, i.e. to have a sensation of something within oneself. Fichte, and following him all or almost all idealists, proceed from a false identification of the expressions: to have a sensation of something within oneself and to perceive one's own sensation. Yet these two expressions are far from meaning the same thing. When I observe a tree, the object of my perception is the tree, not my perception of it. In most observations, the observer thinks least of all about his own perceptions and their laws, but strives to perceive the properties of the observed thing, if only so as not to be distracted from the main point: Feuerbach, under whose influence Marx became a materialist, rightly observes that the error of idealism lies in its hope of resolving the question of the existence or non-existence of the external world on a theoretical plane. But this is pure speculation. Idealism proceeds from the entirely false assumption that sensation is the ultimate element, dependent on nothing else and connected to nothing else. In reality, however, sensation is a complex process and is far from being something ultimate and beyond analysis.'

It presupposes a whole series of conditions that are themselves complex, such as breathing, the intake of food, and so on. Of course,' continues Feuerbach, 'such a formulation of the question—that the problems of sensation, knowability, and the reality of the world are resolved in connection with and dependent upon the question of breathing and digestion—seems to idealists to be something dreadful. In reality, however, there is nothing terrible about this. Feuerbach spoke the truth, for not only the materialist but also the idealist knows full well in his practice, which he theoretically

'assumes' that, should he fall ill or should his body be exhausted by a hunger strike, his reflections on the nature of sensation, or on the reality or unreality of the world, would soon come to an end. Therefore, Marx correctly states in the second thesis on Feuerbach, already quoted, that 'the dispute over the reality or unreality of thought isolated from practice is a purely scholastic question'. Lenin excellently defined the dialectical connection between the thing-in-itself and the phenomenon, saying that the transformation of the thing-in-itself into a phenomenon is cognition. Therefore, recognising sensation as the source of our knowledge is far from being materialism. *'Starting from sensations,'* says Lenin, *'one can follow the line of subjectivism, leading to solipsism ("bodies are complexes or combinations of sensations"), and one can follow the line of objectivism, leading to materialism (sensations are images of bodies in the external world). From the first point of view—agnosticism or, going a step further: subjective idealism*

— there can be no objective truth. For the second, i.e. materialism, the recognition of objective truth is essential' (Vol. 10, pp. 100–101).

It is perfectly clear that, by rejecting the thing-in-itself, agnostics must also reject matter. They call materialists dogmatists for their recognition of matter. They assert that the findings of modern natural science do away with the concept of matter. We shall discuss in more detail whether modern natural science refutes matter and materialism or not in the penultimate (V) chapter. For now, we need only to clarify the concept of matter somewhat in order to clarify the concept of reflection. *'Matter,'* Lenin defines, *'is a philosophical category denoting objective reality, which is given to man in his sensations , , which is copied, is photographed,*

is reflected in our perceptions, whilst existing independently of them. Therefore, to suggest that such a concept might 'become obsolete' is mere infantile babble, a meaningless repetition of the arguments of fashionable reactionary philosophy. Could the struggle between idealism and materialism have become obsolete over two thousand years of philosophical development?.. The struggle between religion and science?' (Vol. 10, p. 103).

Lenin thus summarises the results of his analysis:

1. *'Things exist independently of our consciousness, independently of our sensations, outside us, for it is beyond doubt that alizarin existed yesterday in coal tar, and it is equally beyond doubt that yesterday we knew nothing of this existence, nor did we derive any sensations from this alizarin.'*

2. *'There is absolutely no fundamental difference between a phenomenon and a thing-in-itself, nor can there be. The distinction lies simply between what is known and what is not yet known, and philosophical speculations about special boundaries between the two, that the thing-in-itself lies 'beyond' phenomena (Kant), or that one can and must erect some sort of philosophical barrier against the question of the as-yet-unknown in this or that particular, yet external, world (Hume)—all this is utter nonsense, sophistry, fabrication.'*

3. *'In the theory of knowledge, as in all other fields science, one must reason dialectically, that is, not assume a ready-made and unchanging object of knowledge, but examine how knowledge arises from ignorance, and how incomplete, inaccurate knowledge becomes more complete and more accurate' (Vol. 10, p. 80).*

This definition of knowledge—the transformation of the thing-in-itself into a phenomenon, into a thing-for-us—best reveals the vast gulf that separates dialectical materialism from all forms of agnosticism and subjective idealism. This definition is concrete, for it indicates how ignorance is transformed into knowledge. Knowledge, just like everything else in the world, is not something ready-made, fixed, or given once and for all—it is the result of real, prolonged, painstaking research, experiments, observations and their generalisations. No witty, a priori constructs can

replace these less 'sublime', prosaic, yet accurate, and millions of times tested, methods of cognition. Only Marx's dialectical materialism could provide a satisfactory and truly scientific answer to the question of the development of cognition and its sharp distinction from all a priori constructs of idealism. Marxism provided a sober theory of knowledge that accurately reflects reality. It was able to do so because it did not allow itself to become detached from reality, but viewed science and the entire historical process of the development of human knowledge in their living connection with the social reality on the basis of which they (science and the entire historical process) developed and from the soil of which they grew. Only an understanding of the constant interaction between nature and humanity in the form of its practical life could lead Marx onto the right path to realising this great connection. He succeeded in achieving such an understanding because he viewed theory not as a passive, contemplative activity, but as part of revolutionary human practice. As we have seen, Lenin followed the same path. As a true revolutionary practitioner, he was able to supplement and develop Marx's revolutionary doctrine in many respects.

To summarise, we can say the following. Materialism recognises the external world as existing outside and independently of our consciousness. Our sensations, however, are images or reflections of the external world.

'A sensation is an image of moving matter' (Lenin. Vol. 10. p. 254). It should be understood as a true reflection, and not in the sense of conventional signs, as the empirio-critics understand them.

Conventional sign, the understanding of the empirio-critics is not a reflection of reality itself, but merely a sign of our representations. Moreover, the question of whether these representations are reflections of reality itself or not is, from the Machist point of view, completely irrelevant, and is irrelevant because, for the empirio-criticists and empirio-symbolists, there is no reality external to our symbols whatsoever. *'Engels,'* Lenin emphasises, *'does not speak to them of symbols or hieroglyphs, but of copies, photographs, images, and mirror reflections of things'* (Vol. 10. p. 193). Some Russian Machists attempted to replace Mach's term 'element' with another word: 'symbol'

or 'hieroglyph'. But this changes nothing, since they are in fact emphasising precisely that symbols or hieroglyphs are not representations of the things themselves. Lenin, following Engels, understands representation as a copy of real external processes in our brain, in spite of all the criticisms from the muddlers who cry out about 'crude' materialism. By 'copy', however, Lenin means a quite specific thing, namely the result of an action caused by external processes in our brain matter. No cries of vulgar materialism can obscure the fundamental difference between consistent materialism and the confused idealism of Mach and his Russian supporters, for to renounce sensations in the sense of copies of external reality is to renounce materialism.

Feuerbach had already launched a scathing attack on Johann Müller, the renowned founder of modern physiology, who discovered the law of the specific energy of the sense organs. This law states that our sense organs respond to the external world in their own distinct ways. For example, the eye responds to various external stimuli solely through visual images, whilst the ear responds through hearing. On the basis of this feature, Müller drew the entirely false conclusion that our sensations are not images of objective reality. After all, there can only be one reality, whilst its representations vary depending on which sense organ we use to perceive it. This is, of course, true, but it does not at all follow that Müller was correct in what he said on this matter. External processes do indeed affect our various organs in different ways. But this is not only no refutation of the theory of representation, but, on the contrary, a confirmation of it. It is not difficult to understand that for any action at least two things are required—in this case: an external stimulus and some organ that perceives it. Since the organ is different, the result of the influence must also be different.

The idealist accepts sensation as a given fact—and nothing more. He either asserts that there is nothing beyond these sensations, or asserts that even if something exists beyond sensations, we know nothing and can know nothing about such things. The Kantian school adheres to this second position. Lenin objects to them: if there were nothing beyond sensory perceptions or sensations

If that were the case, the whole world would dissolve into these sensations or into various combinations of them. But it follows from this that the world could not have existed prior to our sensations. However, natural science maintains that the Earth existed even when neither humans nor any other animals were yet present on it, for organic matter appeared on Earth relatively very late. The assertion of the empirio-critics leads to the absurd conclusion that the elementary truth regarding the existence of the world prior to man is incorrect. True, the empirio-critics define their elements as something independent of man, at least of the individual human being. But this is merely an evasion of admitting their error, since elements denote sensations, and without a human being no sensations are possible. A sensation belonging to no one is a square circle. Bogdanov sought to avoid such an obviously absurd consequence by means of the hypothesis of the theory of organised experience. It boils down to the fact that experience is not the individual affair of separate people, but a collective labour of humanity, collectively organised labour. According to this theory, experience coincides with the system of these collective complexes of sensations. Lenin quite rightly points out that, according to such a definition, even God represents the 'experience' of many people (believers). *'God is, undoubtedly, a derivative of the socially organised experience of living beings',* *"Undoubtedly, that Catholicism is a socially organised experience; only it reflects not objective truth, but the exploitation of the people's blindness by certain social classes"* (Lenin. Vol. 10. p. 191). With his definition, Bogdanov is unable to distinguish truth from fantasy. It is not difficult to see that he understands 'experience' in a dual sense. Experience signifies, firstly, the historical experience of humanity, i.e. the organisation of knowledge, and, secondly, its object, nature, which is by no means a creation of humanity, but exists prior to it and independently of it. Celestial bodies attracted one another even before Newton had discovered the law of universal gravitation. The truth that nature existed before man, of course, does not contradict, but, on the contrary, is necessary to explain why nature is becoming increasingly dependent on man.

Consequently, anyone who does not wish to be an advocate of eclecticism must inevitably acknowledge that sensation is a true image of the external world, that *'the movement of ideas, perceptions, etc., corresponds to the movement of matter outside me'* (Vol. 10, p. 224).

How Lenin understands the word 'image' or 'reflection' is evident from the following passage in his book **Materialism and Empirio-Criticism**: *'Sensations are caused by the action of moving matter on our sense organs. This is the view of natural science. The sensation of the colour red reflects vibrations of the ether occurring at a rate of approximately 450 trillion per second. The sensation of the colour blue reflects vibrations of the ether at a rate of about 620 trillion per second. The vibrations of the ether exist independently of our sensations of light. Our sensations of light depend on the action of the vibrations of the ether on the human organ of sight. Our sensations reflect objective reality, i.e. that which exists independently of humanity and of human sensations. This is the view of natural science'* (Vol. 10, p. 254).

LENIN'S CHARACTERISATION OF MATERIALISM AND OF IDEALISM

Lenin tirelessly emphasises that Marxism is materialism. 'The philosophy of Marxism is materialism. Throughout the modern history of Europe, and especially at the end of the 18th century, in France, where a decisive battle was waged against all manner of medieval rubbish, against feudalism in institutions and in ideas, materialism proved to be the only consistent philosophy, faithful to all the teachings of the natural sciences, hostile to superstition, bigotry, and the like. The enemies of democracy therefore strove with all their might to 'refute', undermine and slander materialism, and defended various forms of philosophical idealism, which always boils down, in one way or another, to the defence or support of religion. Marx and Engels most resolutely defended philosophical materialism and repeatedly explained the profound fallacy of any deviations from this foundation' ³ .

³ Lenin, The Three Sources and Three Constituent Parts of Marxism. Collected Works, Vol. XII, Part 2, p. 55.

But Marx's materialism is not the materialism of the 18th-century French materialists. Lenin constantly emphasises this important truth. He sees the confusion between these two forms of materialism as one of the reasons why some contemporary physicists and their philosophical adherents have turned away from materialism. The shortcomings of 18th-century materialism were clearly characterised by Engels, and Lenin fully endorses this characterisation. Following Engels, he lists the three main shortcomings of the 18th-century French materialists.

1. *'The view of the old materialists was. 'mechanical' in the sense that they applied the scale of mechanics exclusively to the processes of chemical and organic nature'* (Lenin is quoting Engels here).

2. *"The second limitation: the metaphysical nature of the views of the old materialists in the sense of the 'anti-dialectical nature of their philosophy'. This limitation is fully shared by our Machists, along with Büchner and Co., who, as we have seen, have understood absolutely nothing about Engels's application of dialectics to epistemology."*

3. *"The third limitation: the persistence of idealism 'at the top', in the realm of social science." The Machists and empirio-critics—and not only they—understood Engels's critique of 18th-century French materialism not as a critique of its shortcomings, but as a critique of materialism itself, i.e. not of mechanical materialism, but of materialism in general (as a critique of the materialist explanation of the relationship between spirit and matter). But Lenin emphatically stresses that it is exclusively on these three points, exclusively within these limits, that Engels rejects both 18th-century materialism and the teachings of Büchner and Co.! 'On all other questions of materialism (as distorted by the Machists), there is no difference, nor can there be, between Marx and Engels, on the one hand, and all these old materialists, on the other' (Vol. 10, p. 200).*

Marx and Engels criticised mechanical materialism from the standpoint of a higher form of materialism, from the standpoint of dialectical materialism. They criticised Büchner and the like as poor materialists, but they criticised them with the aim of correcting their shortcomings and errors.

But Lenin directed the brunt of his criticism mainly against the empirio-critics, against the Russian Machists who wished to be Marxists. The empirio-monists and empirio-symbolists did not regard themselves as idealists. Lenin fought against them in a comradely manner, hoping to make them see⁴ their errors. But he felt it necessary to speak out against them so that, by exposing them, he might protect those Marxists who might follow them and thereby break with orthodox Marxism. At the same time, as a true disciple of Marx and Engels, Lenin criticised the errors of mechanical materialism. But he fought with particular vehemence against idealism and against idealistic distortions of materialism in particular. He regarded idealism—and not merely this or that form, this or that variety of idealism—as an accomplice and collaborator of religion. *‘Behind the epistemological scholasticism of empirio-criticism,’* he says, *‘one cannot fail to see the struggle of parties in philosophy, a struggle which ultimately expresses the tendencies and ideology of the hostile classes of modern society. Modern philosophy is just as partisan as it was two thousand years ago. The contending parties, in essence... are materialism and idealism. The latter is merely a refined, sophisticated form of fideism’* (Vol. 10, p. 303).

The empirio-critics sought to demonstrate the truth of their philosophy using the achievements of modern natural science as an example. They attempted to ‘derive’ from these achievements the most absurd conclusion, namely that new discoveries in natural science confirm their assumption that physics no longer requires the concept of matter existing objectively, independently of our consciousness. We shall discuss this in Chapter V. There we shall show how brilliantly Lenin refuted this conclusion of the empirio-critics and proved that the modern theory of matter justifies not empirio-criticism, but dialectical materialism.

But Lenin fought not only against empirio-criticism, but also against all forms of idealism. He distinguishes between simple and complex idealism. The former takes individual sensation as its basis, the idea that only the existence of one’s own sensations is absolutely certain and, thereby, only the existence of one’s own

⁴ The author’s choice of words – Ed.

I. This strand of idealism, if taken to its logical conclusion, leads to solipsism. Solipsism means that we can be absolutely certain only of our own personal existence, and this existence is understood not as the existence of our body, but as the existence of our 'disembodied' self. The second variant, complex idealism, seeking to dismiss solipsism as an unpleasant consequence of its theory, proclaims 'another' form of sensation. Sensation is 'purified' of the self and becomes a sensation belonging to no one, a sensation in general. In the same way, more complex mental phenomena, such as representations, concepts, etc., are separated from our body and from the processes of our brain and are taken for the absolute (the absolute idea or the absolute spirit). Thus arose the famous theory of substitution, which holds that 'sensation, as a specific 'element', the 'psychic', is substituted for the whole of physical nature'. However, although Lenin acknowledges these and an even greater number of other nuances between various idealistic systems, he rightly points out that these differences are insignificant from the standpoint of materialism. What is significant is that they all deny either the knowability of the external world or even its very existence.

Ostwald's philosophy of nature is also a form of idealism. Ostwald, the famous German chemist, sought to avoid choosing between materialism and idealism—this single fundamental philosophical alternative—by broadening the concept of energy. He subsumes both matter and spirit under energy. But this reduction adds nothing to the matter. Lenin rightly observes that Ostwald merely shifts 'the difficulty from the subject to the predicate'. The crux of the matter is this: is energy material, does the transformation of energy take place outside my consciousness, or are these merely ideas, symbols, conventional signs? (Vol. 10, p. 227). Ostwald's aim boils down to conceiving of motion without matter. It is quite obvious that Ostwald's energetics can lead to nothing but confusion; Lenin correctly points out that the secret basis of Ostwald's endeavour is the desire to 'bring' both fundamental categories — matter and spirit — under the general concept of energy. But it is not difficult to see that such a viewpoint is abstract. For it was necessary to explain how

mental processes differ from physical ones. Ostwald merely evaded the issue.

Engels criticised both mechanical materialism and various forms of idealism. However, he criticised them by assessing them differently⁵. He criticised mechanical materialism not with the aim of refuting materialism, but with the aim of developing materialism. Mechanical materialists were materialists at the bottom and idealists at the top. Marx and Engels regarded their main task as the application of materialism to history, i.e. 'completing the edifice of materialist philosophy to the top'. They succeeded in accomplishing this task by transforming mechanical materialism into dialectical materialism. They managed to achieve such a significant restructuring of materialism by assimilating and reworking Hegel's idealist dialectic, which had begun to be forgotten since the 1850s and which the epigones of the French materialists (Büchner, Voigt, Molinott, etc.) had failed to appreciate. They cast it overboard along with Hegel's 'manure heap of absolute idealism' (Vol. 10, p. 202), or, more accurately, did not study it at all. Marx, Engels and Lenin, however, criticised idealism in all its forms with the aim of refuting it and eradicating it from the minds of the proletariat.

ABSOLUTE AND RELATIVE TRUTH

The fundamental difference between materialism and idealism already implies a difference in the views of both schools regarding the meaning of the concept of truth. Materialism, by recognising the independent existence of nature and matter apart from our consciousness, thereby also recognises objective truth. This means that our sensations, perceptions, and the judgements formed on their basis reflect the objective world. This is how we must understand the objectivity of our knowledge. It is objective or true because it reflects the external world. This obvious and necessary consequence, flowing from the fundamental tenet of materialism, is fiercely contested by agnosticism, including empirio-criticism. Their supporters do not recognise truth in the sense of an objective reflection of the world external to consciousness. They pride themselves on the fact that

⁵ Author's syntax – ed.

that they are relativists. Relativism is a school of thought which asserts that all human truth is relative, that there is no absolute truth. The insistence on the subjective relativity of all human truths is the result of confusion regarding the relationship between absolute and relative truth. Relativists believe that truth is either relative or absolute, but cannot be both. On this point, they are not relativists, but

'absolutists'⁽⁶⁾. Lenin, following Engels, offers a brilliant critique of such a formalistic (anti-dialectical) approach to this question. In reality, truth is both relative and not relative. This means that our knowledge never not can come to an end, never not will the 'final word'. Science develops both in breadth and in depth, and this process will have no end as long as humanity lives. Nevertheless, our relative truths are at the same time objective, objective in the sense that they reflect reality more or less accurately. The only thing that is certain is that our concepts can never reflect nature with absolute precision; they merely approximate, to a greater or lesser extent, an ideally accurate representation of reality. Thus, truth will nevertheless be objective, because it is a reflection—albeit a historically conditioned reflection—of reality. All knowledge depends on the historically given level of culture as a whole, on measuring instruments and, in general, on the conditions for the accuracy of observation.

On the basis of this definition of the objectivity of truth, Lenin quite consistently points out that truth is objective because it does not depend on human will. This independence of truth from our will stems primarily from the fact that truth is a reflection of the world.

From this understanding of the objectivity of truth, another important consequence follows. Anyone who acknowledges the objectivity of truth cannot deny the existence of absolute truth. Absolute truth differs from objective truth in that it is the most perfect objective truth. But, one might ask, does the most perfect objective truth exist? What is absolute, i.e.

⁶ They are 'absolutists' in the sense that, given the alternative: **truth is either absolute or relative**, for them there is an absolute truth, whereas this assertion is not only not an absolute truth, but is positively false.

The most perfect, objective truth constitutes a form of objective truth in general; this is clear to everyone. The question is simply whether it exists, whether we can grasp it, or, in other words, whether humanity possesses truths that reflect reality with absolute accuracy (adequately)? *'To recognise objective truth, that is, truth independent of man and of humanity,'* says Lenin, *'means, in one way or another, to recognise absolute truth. It is this "in one way or another" that distinguishes the materialist-metaphysician Dühring from the materialist-dialectician Engels... For dialectical materialism, there is no insurmountable boundary between relative and absolute truth... From the standpoint of modern materialism, i.e. Marxism, the limits of our knowledge's approximation to objective, absolute truth are historically conditional, but the existence of this truth is unconditional, as is the fact that we are approaching it. The contours of the picture are historically conditional, but it is beyond doubt that this picture depicts an objectively existing model. It is historically conditional when and under what conditions we advanced in our understanding of the essence of things—whether through the discovery of alizarin in coal tar or the discovery of electrons in the atom—but it is beyond doubt that every such discovery is a step forward in 'unquestionably objective knowledge'. In short, every ideology is historically conditional, but it is beyond doubt that every scientific ideology (unlike, for example, a religious one) corresponds to objective truth, to absolute nature. You might say: this distinction between relative and absolute truth is vague. I would reply: it is precisely 'vague' enough to prevent science from turning into dogma in the worst sense of the word, into something dead, frozen, ossified, yet at the same time it is precisely 'definite' enough to distance itself in the most decisive and irrevocable manner from fideism and agnosticism, from philosophical idealism and from the sophistry of the followers of Hume and Kant. There is a fine line here that you have failed to notice, and, having failed to notice it, you have slipped into the quagmire of reactionary philosophy. This is the line between dialectical materialism and relativism'* (Vol. 10, pp. 106, 109).

The problem with relativism lies not only in the fact that it recognises only relative truths, but also in the fact that it denies the objectivity of this relative truth, its

independence from human will, and its approximation to a reality independent of us. From the standpoint of relativism, the statement that Napoleon died on 5 May 1821, for example, would be conditional.

'Human thought,' says Lenin, 'is by its very nature capable of giving us, and does give us, absolute truth, which is made up of the sum of relative truths. Each stage in the development of science adds new grains to this sum of absolute truth, but the limits of truth in every scientific proposition are relative, being now expanded, now narrowed by the further growth of knowledge' (Vol. 10, p. 108).

Thus, dialectical materialism does not completely reject relativism, but restricts it. *'The materialist dialectic of Marx and Engels certainly includes relativism, but is not reduced to it; that is, it recognises the relativity of all our knowledge not in the sense of denying objective truth, but in the sense of the historical contingency of the limits of our knowledge's approximation to this truth' (Ibid., p. 110).*

Bogdanov wrote that such a viewpoint is non-Marxist, because Marxism does not allow for the static nature of eternal truths. Lenin rightly objects: what does static nature have to do with it? Marxism is incompatible with the immutability of the essence of things and of our consciousness. Only one thing is immutable.

That is the correspondence between our consciousness, which reflects nature, and the nature it reflects. If even this correspondence were to cease, then objective truth could not exist at all.

How did the theory of agnosticism arise? On what is it based? It is based on the historical fact that, as individual sciences develop, the explanation of phenomena changes. Some laws give way to other laws, more suitable for explanation.

This fact reinforces the conviction among supporters of agnosticism that laws are merely relative. In their view, it follows that laws reflect the level of our understanding and the historical contingency of our knowledge rather than objective reality. But we have seen that brilliant resolution of the relationship between absolute and relative truth, which Engels provided and which Lenin so incisively formulated and developed. For relativists, truths are merely relative. As for absolute truth, they

. The dialectical solution, as the reader will recall, lies in the fact (we repeat this passage in view of its importance) that *'human thought, by its very nature, is capable of and does provide us with absolute truth, which is composed of the sum of relative truths. Each stage in the development of science adds new elements to this sum of absolute truth, but the limits of truth in every scientific proposition are relative, being now expanded, now narrowed by the further growth of knowledge'* (Lenin. Vol. 10. p. 108).

Thus, the understanding of truth as merely relative is undialectical. It is incorrect to say that truth is objective only within the limits of a given epoch (Bogdanov). It is true only that every stage in the development of science is historically conditioned, that no single epoch can exhaust the whole of truth. As Lenin so beautifully puts it, the limits of truth in every scientific proposition are relative; the contours of the picture of the world are historically conditioned, but it is unquestionable that this picture depicts the world itself. This means that our concepts are not merely symbols. Our theories are not a substitution of the mental for the physical, reflecting nothing but the subjective laws of thought. The laws of thought, in the sense of the theory of substitution, are detached from the rest of reality, of which they constitute only a small part. Absolute truth, of course, is not something ready-made, but is composed of relative truths. Thus, absolute truth is that real limit towards which human thought is drawing ever closer, although no era in human history has reached this limit, nor ever will. But it is not true that, due to the boundlessness of the process of cognition, absolute truth constitutes an imaginary limit. It would be an imaginary limit only if man, with his reason, were the sole being in the world. Thought has before it an objective nature, existing independently of it, with all its objective laws. It is true that our thinking will never, at any stage of history, fully exhaust these objective laws. But they exist and already existed at a time when neither man nor his thinking existed. Therefore, our thinking, which reflects the activity of the consciousness of man, possesses within

objective laws of nature a very real, and by no means merely imaginary, limit imposed by us.

It is entirely mistaken to assume that the development of science consists in the laws we 'postulate' eventually giving way, once their inadequacy becomes apparent, to other, more suitable laws—again postulated by us. And these, in turn, will be replaced by new ones, just like the previous ones. This would mean that the development of science is an endless process not of knowledge, but of error, and nothing else. It is generally incorrect to suggest that laws which have played a significant role might lose their significance in the further course of history due to their complete unsuitability. No law which has proved capable of explaining a large group of phenomena is ever definitively abolished. Its 'unsuitability' is always relative. Instead of the word 'unsuitability', it is more accurate to speak of 'inaccuracy'. Indeed, none of the laws we have discovered are absolutely precise. It is more accurate to compare the succession of laws explaining a particular field of phenomena, following Lenin's example, to a spiral line that simultaneously rotates and rises upwards, rather than to a series of circles lying side by side on a single plane.

THE CONCRETE NATURE OF TRUTH

The concept of the concreteness of truth plays an extremely important role for Lenin, as it did for Marx and Engels. Quite a few Marxists believed that it was sufficient to know the basic tenets of Marxism, and that we then had everything necessary to apply them to specific cases. This is incorrect. Marxism requires taking into account the specific features of every individual phenomenon, be it a phenomenon of nature or of society. Without such consideration, it is impossible to provide a genuine analysis; at best, the result is a lifeless, static repetition, 'formulaic application' of the fundamental truths of dialectical materialism. Plekhanov himself had already emphasised that there are no abstract truths; truth is always concrete. Despite this, Lenin rightly reproaches Plekhanov for the fact that he too often forgot this truth, chiefly from the time of his transition to the camp of the 'defenceists'.

'The desire to seek answers to specific questions,' writes Lenin, 'in the simple logical development of the general truth about

‘The fundamental nature of our revolution is the trivialisation of Marxism and the wholesale mockery of dialectical materialism’ (Vol. 3, p. 10). Elsewhere, he returns to this same idea. ‘To derive a specific proposition regarding a particular tactic in a specific case, on the attitude towards the various parties of bourgeois democracy from a general phrase about the ‘general character’ of the revolution, instead of deriving this ‘general character of the Russian Revolution’ from a precise analysis of concrete data on the interests and position of the various classes in the Russian Revolution—is this not a forgery? Is this not a blatant mockery of Marx’s dialectical materialism? Yes

— yes, no — no, and what is beyond that is from the devil! Either either a bourgeois or a socialist revolution, and the rest can be ‘derived’ from the main ‘conclusion’ by means of simple syllogisms!’ (Vol. 8, p. 82). Only the study of the specific historical features of the labour movement in particular countries can yield the desired result, capable of guiding our action. Lenin insists with particular vigour on this approach to questions of revolution. Revolution ‘must be assessed as a struggle of living social forces, placed in certain objective conditions, acting in a certain way and employing, with greater or lesser success, certain forms of struggle’ (Vol. 11, Part 1, p. 77).

Thus, it is necessary to place every single issue of social life within a specific historical framework and take into account the concrete features that distinguish one country from another, even when we are talking about the same historical epoch. Lenin provides many exemplary instances of this approach. Let us take an example. He analyses the phases of capitalism’s development. The first phase is the era of the collapse of feudalism and absolutism. Bourgeois society is only just beginning to take shape. Under the leadership of the bourgeoisie, all classes of the population are slowly drawn into the political struggle. The second phase is the era of the victorious bourgeois state, the era of the constitutional, democratic system, when, hand in hand with the development of capitalism within the bosom of the new social system, a new class—the proletariat—develops more and more. The struggle of the proletariat against the bourgeoisie is the decisive political and economic feature of this phase. The internal contradictions of the entire system lead to the further development

the form of bourgeois society, to its third phase, the phase of monopoly and imperialist capitalism. Marxists rightly call this phase the eve of the collapse of capitalism, the era of proletarian revolutions.

But just as there is no absolute dividing line in nature separating different processes (mechanical, physical, chemical, biological), so too are historical epochs not separated from one another by an unbridgeable gulf. On the contrary, they are linked by numerous transitional stages. It follows that bourgeois and proletarian revolutions cannot be separated by a Great Wall of China either. As early as 1848,⁷ three months after the outbreak of the bourgeois revolution that brought an end to the July Monarchy, the first truly mass proletarian uprising broke out in France. Following the defeat of the Second Empire, the empire of Napoleon III, in 1871, in the very midst of the war, an uprising of the Parisian proletariat took place, establishing the first proletarian dictatorship, which lasted 72 days. This truth can be verified even more clearly in the course of events of the Russian Revolution of 1917, when the bourgeois revolution, after nine months, developed into a proletarian revolution that overthrew the bourgeois yoke. It was this revolution that brought the bourgeois revolution to its conclusion.

All historical examples prove that complex concrete situations can be successfully approached only through equally complex and concrete analyses. Any concrete analysis presupposes taking into account all the particularities and mediations of the historical moment. Such an approach is required not only for the sake of theoretical explanation, but even more so for the sake of the real success of a truly mass revolutionary movement. Without a correct, multifaceted analysis of all conditions and all complex mediations, theory cannot come to the aid of practice. We have already spoken of the immense importance of correct revolutionary theory for the revolutionary movement, and there is no need to repeat ourselves on this point.

Concrete analysis requires concrete concepts, and so the need for a precise definition of the concreteness of concepts suggests itself. A concept is concrete— —when it is as far as possible

⁷ Most likely, the word “through” should appear here. Ed.

a reflection not only of elements of reality, but also of their multifaceted interrelationships. A concrete concept is a condensation of a long chain of correct concepts abstracted from reality and their diverse connections. It follows that a concrete concept is always complex, i.e. it consists of a synthesis of other concepts. A concrete concept must provide a precise indication of how a given process takes place. The measure of the precision and power of such a concept is the case where, following its guidance, we are able not only to analyse a process that has already taken place, but also to recreate it, i.e. to perform not only analysis but also synthesis. As is well known, in addition to analytical chemistry, there is also synthetic chemistry, which deals with the creation of chemical compounds in the laboratory. The culmination of synthetic chemistry is the synthesis of a protein. Although chemistry has not yet reached this stage, chemists have been working on this problem for many decades, and there is no doubt that eventually they will succeed in creating a living organism.

We know that the various positive sciences are at very different stages of development. Mechanics and physics are more advanced than chemistry, and chemistry is more advanced than biology. Political economy, for its part, has become a strictly scientific discipline and has overtaken biology in its development thanks to the brilliant works of Marx. It was Marx and Engels who established history as a science and, at the same time, scientific politics. The latter, alongside economics, was further developed by Lenin, who, as the leader of the revolution in a vast country, set an example for the first time in history of applying the scientific principles of Marxism to the problems of the state, not only theoretically but also practically on a national and global scale. And naturally the question arises: why have individual sciences developed so unevenly up to now? Geometry and mechanics became exact sciences as early as the twilight of ancient Greek culture (Euclid, Apollonius, Heron, Archimedes, etc.). The dawn of the modern era was again marked by an unprecedented surge in mechanical discoveries. Copernicus discovered the Earth's rotation around the Sun; Kepler discovered the laws of planetary motion; Newton discovered the law of universal gravitation. Newton and Leibniz themselves devised the new method of calculation that facilitated this rapid development of mechanics:

the method of calculating infinitesimals, or differential and integral calculus. However, it took nearly two centuries for physics to embark on a path of development as rapid as that shown by mechanics. The question arises: what is the reason for this uneven development of the individual sciences? For a Marxist, there is not the slightest doubt that the cause ultimately lies in those social conditions which determine the social superstructure, including the development of science. Scientific problems do not arise for no reason; they do not fall from the sky, but are the consequences and expressions of humanity's historical tasks, great instruments in the struggle to master those tasks. They are not 'invented' by individuals, but are posed by history, and are posed when social conditions begin to demand their resolution, when the further development of the productive forces cannot proceed successfully without their resolution.

The question is: by virtue of what characteristics of the scientific method is a mass of disparate knowledge transformed and developed into positive science? It is not difficult to understand that this revolution becomes possible precisely because old, still relatively abstract concepts are transformed into concrete ones in the course of research. If we compare the concepts of descriptive botany or zoology with those of geometry, physics or economics, we immediately see the vast gulf that separates them in terms of concreteness. Definitions in the descriptive sciences are still limited to indicating two aspects of a concept. Every definition features the so-called nearest genus and specific species, which characterise the phenomenon being defined. 'Man is a thinking, bipedal animal'—this statement provides an example of such a formal definition. It indicates the genus to which man belongs (animal) and the specific species, which is one of all the species falling under this genus (bipedal, thinking). But let us take an example from elementary geometry. What is a circle? A circle is a set of points that lie at equal distances from a single point. This simple example already enables us to understand the issue at hand. Anyone, even those who have never studied geometry, immediately realises that, by the definition of a circle, anyone can draw a circle (more or less accurately). But

It would be absurd to even think that one could grasp the essence of a human being from this formal definition. However, one might object to this by saying that, whilst it is certainly possible to draw a circle, it is impossible to create material substances according to any set of instructions. If this is understood to mean the creation of matter from nothing, then this is, of course, true, for it has long been accepted as a fact that nothing can be made from nothing. But if we have chemical elements — and we do indeed have them at our disposal — then we can create the most diverse compounds from them; we can even synthesise in the laboratory compounds that have not yet been observed in nature. According to the laws of chemistry, it is theoretically possible to discover—and chemists do indeed discover—such compounds whose properties we have never experienced, but which we could calculate in advance on the basis of these laws. We can transform any form of energy into another and utilise them for our practical purposes.

The situation is no different in the realm of social phenomena. As Engels so aptly put it, here too the correct theory serves as a guide to action. What does this mean? It means that Marxism is the only correct social theory, which provides us with guidance on how not only to explain society, but also to change it. In his profound analysis of surplus value, Marx revealed the driving law of capitalist exploitation. Armed with knowledge of this law, the proletariat possesses a powerful weapon to rid itself of exploitation and create a society where it does not exist, i.e. where there are no ruling and oppressed classes. It was Marx himself who uncovered the essence of the state. The state is the organisation of violence by the ruling class to oppress the subordinate classes for the purpose of their exploitation. A thorough study of the structure of state power, based on millions of facts from modern capitalist society, provided Marx with an explanation of how this vast apparatus functions. It was, of course, impossible to foresee in every detail what the structure of the new proletarian state should be. But as early as 1852, Marx, drawing on the experiences of the revolutionary years⁸, was able to foresee that this state can be only a revolutionary

⁽⁸⁾ Author's spelling. Ed.

dictatorship of the proletariat. Direct confirmation of this brilliant foresight was provided by the Paris Commune, which served Marx not only as confirmation of his thinking, but also as a basis for expanding the generalisation of his theory. Final confirmation of Marx's foresight, already on a massive scale, was provided by the Russian proletarian revolution. The vanguard of the Russian proletariat, in the form of the Communist Party under Lenin's leadership, was already able to put into practice this form of new state structure predicted by Marx, and all the successes of its ten-year existence are proof of the correctness of this theory.

From all that has been said, it is clear that a correct theory must be concrete, that is, it must possess the fundamental properties we have illustrated with these examples. These are all the properties on the basis of which an object can be created or recreated. These same examples demonstrate the immense significance of such a theory in guiding practice and reveal the truth of Marx's thesis on Feuerbach, according to which the task of philosophy lies not merely in explaining the world in one way or another, but in changing it.

It goes without saying that Marx, whilst consistently insisting on the necessity of testing theory against practice (by changing the world), did not thereby mean that it is unnecessary for a theory to explain the world. On the contrary, changing the world is possible only with the aid of a theory which is capable, first and foremost, of explaining the world being changed. The separation of theory from practice—whether through neglecting practice for the sake of theory, or sacrificing theory for the sake of practice—is equally unacceptable to Marxism. Marxism is the most correct synthesis of theory and practice.

In his Theses on Feuerbach, Marx points to a major gap that existed in virtually all the old systems of materialism. He points out that, in this respect, idealism has contributed more than materialism. 'The main shortcoming of materialism,' he says, 'up to and including Feuerbach, has hitherto been that it regarded reality, the objective world perceptible by the external senses, only in the form of an object or in the form of contemplation, and not in the form of sensuous human activity, not in the form of practice, not subjectively. Therefore the active aspect, in

opposite of materialism, has hitherto been developed by idealism, but developed in an abstract manner, since idealism, naturally, does not recognise sensuous activity as such... Feuerbach regards only theoretical activity as truly human, whereas practice is understood and depicted there only in the sordid, 'Jewish' form of its manifestation. This is also why he fails to grasp the significance "revolutionary", practical-critical activity'.

From these words of Marx, it is clear how he understands the significance of theory. Theory is most closely linked to revolutionary, practical-critical activity. Lenin deeply understood this feature of truly fruitful theory and made excellent use of it in both theory and practice.

DIALECTICAL-MATERIALIST THEORY OF KNOWLEDGE

What is experience?

Once we have grasped the fundamental tenet of materialism—that matter is primary and thought about it is secondary, or that matter is that which, by acting upon our senses, produces sensations, perceptions, and so on—it is not difficult to understand the meaning of another important category in the theory of knowledge: the concept of experience.

It is entirely natural that idealism and materialism, as the main philosophical schools of thought, define this concept differently. Materialism, recognising moving matter as the primary foundation, must necessarily also recognise the independence of the objective laws of the motion of matter from our consciousness. Idealism, in turn, proceeding from the opposite principle—from consciousness—is compelled by necessity to derive all material phenomena from consciousness. This is how Lenin understands the task of idealism.

'The idealists,' he says, 'demanded the consistent derivation from pure thought not only of a priori forms of contemplation (as Kant did. — A.V.), but of the whole world in general (stretching human thought to the abstract Self or to the "absolute idea" or to the universal will, etc.)' (Vol. 10, pp. 163–164. Our italics. A.V.). It goes without saying that various

idealistic systems, whilst remaining within the framework of the basic principle (the primacy of the spirit, of thought), resolve the individual problems arising from this basic position in different ways, for otherwise they would not be different systems. But their differences cannot be substantial, because the fundamental aim must necessarily consist in an attempt to derive nature from thought. Thus they can differ, and indeed do differ, only in the method of 'derivation', but not in its result. It should be emphasised, however, that the older systems of idealism are more consistent than the more recent ones (post-Hegel).

Leibniz, for example, attempted to derive material phenomena from the so-called pure logical categories (from the principles of contradiction, sufficient reason, and the concept of continuity). Yet even he encountered an extremely great difficulty regarding the origin of our sensations, perceptions, and experiential representations in general. As for logical categories, he could still assume that they did not originate from experience, but constituted an 'eternal' possession of the human mind. Such an assumption follows directly from the foundations of idealism. But the situation is different with sensations. No one can bring themselves—and Leibniz did not—to assert that our sensations, too, are not the result of experience but a priori ideas. Sensations arise independently of human will; it is impossible to summon them at will in the mind, whereas logical principles are constantly at the disposal of the thinking subject. How might one extricate oneself from such a difficulty? Leibniz offered the following solution. Our soul is an organism that develops exclusively according to its own internal laws and requires no influence from external nature. The whole world is an infinite aggregate of internal, organic forces, which he called monads (literally: units). They are spiritual, non-extended, 'metaphysical' points. Monads live and unfold entirely independently of one another, or, as Leibniz figuratively put it, monads have no windows in relation to one another. There is no interaction between them. Monads exist at different levels of perfection. Some of them we call 'inanimate'

bodies, whilst others are living beings. But there is nothing absolutely inanimate in nature. The highest type of monad is the soul. Every monad possesses sensations and ideas; apart from the latter, nothing else occurs within monads. A monad has a sensation, and this is perceived by the conscious monad as extension and impenetrability. Even the highest type of monad, the human soul, does not know with certainty what is happening within it.

It is aware only of the result of its internal movement, which consists solely in the transition from one idea to another. Leibniz called this transition 'striving'. Every internal process within a monad contains within itself true infinity and an infinite connection of different states. But it does not perceive this, nor is it aware of it. It knows only of the finished result, that is, of the finished sensation. It does not know that every sensation constitutes an infinite internal process.

Thus, for Leibniz, as a consistent idealist, the result was—and indeed could not fail to be—the exact opposite of what materialism teaches. Materialism regards sensations as the simplest elements of thought. This simplest form of thought arises as a result of the influence of external processes on our sense organs. But, on the other hand, our brain is a complex form of natural processes. From the perspective of consistent idealism, the situation is the reverse. The starting point is pure logical principles, and the result of their activity, in the form of an infinitely complex process, is sensation.

With this approach, of course, the question remains unresolved as to where the coordination between the actions of different monads comes from, thanks to which we experience sensations precisely when an external object stands before us, which is also a monad, or, more correctly, an aggregate of monads, although it may be a monad of a lower rank (for example, a stone, a tree, etc.). Leibniz was unable to provide a satisfactory answer to this question. On this point, he was forced to resort to God for support, thereby revealing that indisputable truth, emphasised particularly forcefully by Lenin, that idealism leads to God and religion, i.e. to fideism.

It is not difficult to see that such an ‘explanation’ of the origin of empirical knowledge is utterly useless, for it does not resolve the issue but simply denies it. It follows that there is no such thing as experience at all. Experience means the result of an external object’s influence on our consciousness. But Leibniz fundamentally rejects any interaction between things. It is clear that under such conditions Leibniz could not accept the external world as reality.

Such a solution could not satisfy even idealist philosophers in the long run. At the same time as Leibniz’s system was emerging, another school of thought already existed in England. It is known as empiricism and sensualism. Its founder was Locke. But Locke had not yet created a coherent sensualist system; he stopped halfway, remaining a semi-materialist. The sensualist elements of his doctrine found further and now purely idealist development in Berkeley, an English bishop, and in Hume, the English Secretary of State to the Crown. Lenin, devoting an entire work to refuting the idealist distortions of modern Marxism by the Russian empirio-critics, provided an exhaustive critique of the empirio-criticism of Mach and Avenarius and, at the same time, rightly pointed to the source of this trend. Their source is the philosophy of Berkeley and Hume. That is why Lenin devoted the first part of the first chapter of his ‘Materialism and Empirio-Criticism’ to a thorough analysis and critique of the latter two.

Sensualism, in contrast to Leibniz, proceeds from sensations as primary elements of consciousness that cannot be reduced to anything else. We have already pointed out Berkeley’s argument as to why nothing can exist beyond sensations. Berkeley does not recognise the existence of matter or nature in general independent of our sensations. When we have a sensation, we do not perceive the external world—which does not exist—but our own sensations. Nothing can exist beyond them for the reason that sensations cannot resemble anything that is not a sensation. Therefore, even if an external world independent of our consciousness were to exist, our sensations, being in no way like it, could tell us nothing about it. Since they resemble nothing external, then it is entirely superfluous to assume the

the existence of anything other than sensations, for this would merely entail an unnecessary duplication of the world. But even if we were to suppose, Berkeley continues, that sensation resembles something else, materialism would still be untenable, because that which resembles sensation can again be only sensation, and not something external to it. Hume accepted this argument of Berkeley's, but on this basis concluded that the existence of external nature is unknowable and doubtful. He was a sceptic.

The empiricist critic Mach makes no attempt whatsoever to conceal the kinship between his own philosophy and this view. He refers to Hume on numerous occasions. The Russian Machists are in agreement with Mach on this point, although they endeavoured at the same time to be Marxists. They wished merely to 'deepen' Marxism by means of Machism. But such a 'deepening' would have meant that Marxism would have ceased to be Marxism, i.e. materialism, for they directed their 'criticism' precisely at the very foundation not only of Marxism but of all materialism: the definition of matter as the primary principle. In his 'L. Feuerbach', Engels gave a precise definition of the two main philosophical currents, materialism and idealism. For materialists, matter is primary, spirit secondary; for idealists of all shades, the opposite is true. The Machists objected to this definition. What sort of definition is this, they asked? It is merely a repetition. But Lenin quite rightly points out that *'in essence, no other definition can be given of the last two concepts of gnoseology (the theory of knowledge. — A.V.) except by indicating which of them is taken as primary. What does it mean to give a "definition"? It means, first and foremost, to subsume a given concept under another, broader one. For example, when I define: a donkey is an animal, I subsume the concept of 'donkey' under a broader concept. The question now is: are there any broader concepts with which the theory of knowledge could operate than the concepts of being and thought, matter and sensation, the physical and the mental? No. These are the broadest possible concepts, the very broadest concepts, beyond which, in essence... epistemology has not yet gone'* (Vol. 10, p. 118). Lenin rightly points out that neither Mach nor Avenarius offer

any definition of the basic concepts other than an indication of the direction of their philosophical line.

The fundamental flaw in this line of argument lies in the fact that its proponents, on the one hand, proceed from a clearly idealistic conception of the relationship between matter and mind, whilst, on the other hand, they wish to remain grounded in experience. But no verbal sophistry can alter the fundamental truth that experience is understood by the empirio-critics not as the interaction of external nature and human consciousness, or, as is customary to put it in the theory of knowledge, of object and subject (and this is the only materialist definition of experience). They understand experience as an independent activity of consciousness. The fact that Mach sometimes applied his definition of experience inconsistently and spoke of nature, the observation of which is imprinted in our representations, proves only that he was unable to consistently follow his basic idealist line. The confusion regarding the question of experience,

as and in general a number of other theoretical and epistemological questions, arose from the fact that Avenarius and Mach did not accept any nature existing independently of our 'I'. They insisted on their basic position, according to which the starting point is the inseparable connection between our 'I' and the external environment, or that without consciousness there is no world. It is true that the terms used by the empirio-criticists are sometimes liable to mislead the reader, for they speak of experience as an object of study rather than as a means of cognition. But these words, as Lenin rightly pointed out, do not alter the matter, because by these expressions they do not mean an external object independent of our consciousness, which might under certain conditions be the object of our cognition, but rather the very same sensations, or 'elements', viewing them sometimes from the objective side, sometimes from the subjective side. For them, the external object and our sensation still signify not two things, but one thing. Meanwhile, materialism denies the identity of thought and the existence of the external world, for it insists that thought constitutes the highest product of specially organised matter, and not of any matter whatsoever. Thought and existence are united in man, as a thinking organism.

The reader might object that, from the standpoint of materialism too, thought and being cannot essentially be two different things. For materialism understands thought as a process taking place within matter. Apart from matter, which is eternally in simple or complex motion, nothing else exists. This is true. Nevertheless, it is also true that, from the epistemological point of view, thought as reflection and its object as the reflected constitute two processes, not a single process. At the same time, one must not forget that in nature all processes are inextricably linked, including thought and external processes. Dialectical materialism () teaches that being determines consciousness. This means they are not identical, for any causal relationship requires two elements. Therefore, one cannot say that thought is matter, or that it consists of material particles. The opposition between matter and thought, says Lenin, does exist, but it is relative, not absolute. Thought is not matter, but a function, the result of the work of matter (the brain). *'The opposition between matter and consciousness,' says Lenin, 'has absolute significance only within a very limited sphere: in this case exclusively within the scope of the fundamental epistemological question of what is to be recognised as primary and what as secondary. Beyond these limits, the relativity of this proposition is beyond doubt'* (Vol. 10, p. 119. Our italics. — A.V.).

How does Engels define the fundamental problem—the relationship of thought to being—in **L. Feuerbach**? He says the following:

'The general laws governing the motion of the external world and of human thought are two sets of laws which differ in form but are identical in substance. The human mind can apply them consciously, whereas in nature—and, for the most part, in human history as well—they operate unconsciously in the form of external necessity, amidst an endless series of apparent accidents'. From these words of Engels, it is clear that he by no means separates thought from being, but regards the former as subordinate to the latter, i.e. as the result of material processes.

CAUSALITY AND NECESSITY

We have seen that the manner in which the relationship between thought and being is defined determines whether philosophical thought must proceed in a materialist or an idealist direction. Materialism proceeds from being as the first principle, i.e. the existence of nature independent of us. Idealism, on the other hand, proceeds from thought. This opposition of starting points, provided it is consistent, entails a further divergence on all questions of epistemology. What questions does epistemology address? It is concerned with the investigation of those laws of which Engels speaks. It explores the fundamental laws of thought and being, understanding these not as two sets of laws having nothing in common with one another, but as two sets of laws which, whilst differing in form, are essentially identical. The materialist does not say that without a subject there is no object, but insists that nature existed before man and his consciousness, and therefore it had already traversed an immeasurably long path of development according to strictly defined laws even before the emergence of man. The emergence of the latter is, in turn, a necessary result of the development of world matter. This means that human existence, just like the activity of human consciousness, inevitably proceeds, among other things, according to the very same laws that were in force before the emergence of humanity. From a non-dialectical point of view, the human race, according to the laws of nature, should never have come into being, for since the laws of nature are eternal, nothing new can arise at all. Nature must eternally repeat itself. Natural processes, in this case, constitute an eternal cycle in which nothing new arises. There is always only that which has already been, and it is eternally repeated. However, such an absurd and clearly experience-contradicting consequence arises from non-dialectical thinking, from a false understanding of the meaning of regularity in general.

For a materialist, there can be no doubt that the laws of nature are just as objective and exist just as independently of our consciousness as nature itself, material reality. Matter is matter in motion, for it is utterly impossible to separate matter from

motion. The motion of matter does not occur arbitrarily, but according to strict laws. Moving matter is matter that moves according to laws. Since man is very often unable to grasp the, for the most part, extremely complex laws of the motion of matter, he is easily led to the idea that there is no regularity whatsoever in nature itself. From this perspective, nature in itself represents a completely disordered chaos, and it is only we, human beings, who introduce our logical principles into it, bringing at least some order to this objective chaos. It is quite obvious that, with such a view of regularity, it remains unexplained why our mind possesses the ability to ‘bring order to chaos’. Idealists have offered a wide variety of answers to this crucial question, but they all agree that it is we who introduce this order into nature, and not that nature itself possesses it. Yet the idealists could not acknowledge that when such ‘imposition’ of order from our consciousness onto the world, a ‘remarkable’ consistency, or, as they like to put it, ‘harmony’, is revealed between the laws of our thinking and the properties of this ‘chaos’, which, in their view, is nature.

Kant, the founder of one variety of idealism, so-called transcendental idealism, in his famous work **Critique of Pure Reason offered the following explanation: *‘The human mind possesses a priori principles. They are a priori because they did not arise from experience, but constitute the eternal heritage of every possible consciousness, indeed the heritage of all thinking beings. What are these laws? All the basic concepts found in both science and human practice: space, time, magnitude, universality, singularity, quality, substance, causality, freedom, etc. — these are the most important of these concepts.’***

To support his theory of a priori truths, Kant points to a discipline such as mathematics, which, in his view, consists exclusively of a priori truths—that is, truths that transcend experience. ‘And why is such a science possible?’ asks Kant. ‘Because it makes use of the aforementioned categories.’ Another question is how such an a priori construction— , which is, according to the conviction of Kant—

mathematics can reflect the properties of real objects, which (according to Kant's explanation) we know only from experience. (The only problem is that 'experience' for Kant does not mean the same thing as it does for us.) Kant explains the applicability of mathematics to reality by the fact that reality itself depends on the aforementioned categories and is a synthesis of them; that is, he offers an idealistic explanation of the relationship between thought and being. From this it is clear that Kant, too, takes the view that experience is the result of the functions of our speculative concepts. On one point, however, he does make a concession to materialism, in that he acknowledges that our sensations arise as a result of the influence of external objects on our mind. But this materialist position is in no way consistent with his idealist theory of a priori categories. Thus Kant does not deny the existence of the external world; he denies 'only' its knowability, since it is clear that our a priori categories can create objects of experience only according to their own laws and cannot provide any guarantee that things are actually like our phenomena. For phenomena are the result of a construction from sensations by means of our a priori concepts.

Does causality, for example—one of the most important categories—have an objective significance independent of our reason? Kant's answer is: no, it does not have such a significance. When we set out to investigate, says Kant, we already presuppose the significance of causality and do not abstract it from our observations at all. For without its guidance, we could not embark on any investigation at all. Since the concept of causality would derive its meaning from experience, we would have no right to apply it to any investigation until we were convinced that it applies there. However, our conviction in the absolute significance of the law of causality is so great that even if we fail to discover a causal connection in the course of a particular investigation (which is quite possible and happens very often), we still do not abandon the unshakeable nature of its significance, preferring to assume that we have made some error in our investigations. This is the 'transcendental' proof of the pre-empirical, i.e. independent of experience, significance of the principle of causality.

Kant's explanation of experience, as we can see, essentially amounts, if not to the complete abolition of experience, then at any rate to a radical reworking of this important concept. Kant retained sensory data in the sense of pre-logical presuppositions of cognition. However, for him, sensory data can tell us nothing about the world from whose influence they arise. For Kant, sensory data do not signify actual images, more or less accurate reflections of the external causes that evoke them, but rather the ultimate data of our consciousness. It follows from all this that Kant is compelled to categorically deny the knowability of things as they actually are, or, as he puts it, the knowability of the thing-in-itself.

The philosophy of transcendental idealism had an enormous influence on its contemporaries. It spread rapidly throughout almost the entire civilised world. There is no room here to discuss the reasons for this influence. I wish merely to observe that Kantianism constituted an ideology well-suited to the German bourgeoisie during the ascendant phase of its development. Kantianism has not died out to this day. There are various schools representing further branches of the original form of Kant's system. Neo-Kantians, that is, the adherents of these various branches, still call themselves adherents of critical philosophy.

The philosophy of empirio-criticism represents a line that is different in form but essentially also idealistic, including on the question of causality. Empirio-critics insist very strongly on the empirical nature of their school. Kant proceeds from two sources, from two a priori conditions of empirical knowledge: from space and time as a priori forms of our sensibility, and from the a priori categories of pure reason. Experience is constituted by the processing of sensory data through these a priori concepts from both sources. Empirio-criticism takes sensations as the ultimate data of experience and defines 'external' objects as complexes of sensations. The idealistic essence of empirio-criticism

and its variants

— empirio-monism and empirio-symbolism, which were developed by the Russian followers of Mach and Avenarius — is revealed above all in the identification of the external world with these complexes of sensations. Having

the outset, they build an entire system upon this error. The regularity, the existence of which even empirio-critics do not deny, appears to them as the result of the organising activity of our mind amidst the chaos of sensations. Sensations combine, or may combine, in a completely arbitrary manner. Yet in experience we observe a certain order of things. Here, 'things' means sensations. The observed order is not a property inherent in things (sensations), but is introduced into them by us. The question is, by what rule do we proceed when introducing order into the chaos of sensations? The principle of ordering is the rule of economy of thought, or the principle of the least expenditure of effort. When we are faced with a range of possibilities in choosing conditions, then, knowing that conditions and consequences are something objective, we choose the connection between them which, from the point of view of the expenditure of mental effort, is the most economical. It is quite obvious that the explanation of experience by empirio-criticism is not in the least bit better than Kant's explanation. The causal connection is thus regarded by both schools of idealism as a law of consciousness, rather than as a law of the external world independent of us.

Lenin fought against both tendencies, drawing on Engels. True, says he, Engels did not have to

'He did not feel the need to set his materialist viewpoint against other schools of thought specifically on the question of causality. There was no need for him to do so, since on the more fundamental question of the objective reality of the external world he had quite clearly distanced himself from all agnostics... But Engels did not entertain the slightest doubt as to the existence of objective regularity, causality, and the necessity of nature' (Vol. 10, p. 126. It subsequently transpired that Engels had also addressed this question in his recently published work: 'Dialectics of Nature'). Lenin, as is clear from the passage quoted, considers that the objective law of causality is a consequence of the fundamental question of the objective reality of the external world. From the standpoint of materialism, regularity signifies a causal connection. It consists in the fact that in the aggregate world process, comprising an endless chain of events, each link constitutes the cause of another link and the consequence of the preceding links. Processes occur in space and in time. In them there is nothing random ,

every single, even the smallest, part of any process is entirely determined by the conditions that bring it about and which are called its causes. Such a connection between natural phenomena is not the result of some mental construct introduced by us into nature, but is strictly objective and independent of us. Of course, says Lenin, objective causality is reflected in our minds, and is reflected only approximately through our conceptions of order and law. But the relative nature of this reflection in each individual case does not mean that the order being reflected is itself not objective. Lenin points to the significant development that the law of causality underwent in Engels' work, for Engels gave a dialectical definition of causality. In the first phase of our investigation, we are compelled to mentally isolate various intertwined processes and examine them separately, that is, in terms of their specific causes and effects. But this is only the first stage. The world as a whole does not consist of a combination of separate, independent processes. It constitutes a unity. In each individual case, we have to isolate from their natural or historical context certain moments as causes and others as effects. *'But as soon as we consider this individual case in its general connection with the whole world, these concepts converge and intertwine in the concept of universal interaction, in which causes and effects constantly change places; what is now a cause here becomes an effect there or then, and vice versa'* (Engels). Consequently, the distinction between cause and effect is an artificial isolation of one or other aspect of the unified world process. But without such isolation, without analysis, it is impossible to restore the objective connection between phenomena; it is impossible to move from analysis to synthesis.

But the question is, how do we know that the laws of thought correspond to the laws of nature? How do we know, for example, that our principle of causality correctly reflects the objective regularity of external processes? This becomes quite clear, says Engels, if we take into account that thought and consciousness are *'the product of the human brain and human being itself a product of nature'*.

'The products of the brain, being themselves ultimately products of nature, do not contradict the rest of the natural order, but

correspond to it." As we can see, Engels provides a perfectly natural, materialist explanation for the correspondence between the laws of consciousness and the laws of nature, something that neither Kantianism nor empirio-criticism could provide. This explanation is a model of dialectical-materialist explanation, for, unlike idealism, it does not negate the external world and its laws, and at the same time is capable of providing a precise answer to the question of the correspondence of our thinking to the external world. Engels's explanation cannot even be compared with that of Hume or the empirio-criticists. According to Hume and his modern adherents, causal connection does not objectively exist. It is merely that we, as human beings, have become accustomed to expecting the repetition of two phenomena in their sequence if we have observed that sequence in the past. But we have no data to prove that this sequence will continue in the future. Thus, the expectation that the sequence of events observed in the past will continue does not at all mean that it is necessary or objective. All that is necessary is our expectation of it and the mental habit on which it is based. True, Mach acknowledges that in the overwhelming majority of cases this expectation is justified. But this, says Mach, is 'only' because our environment is sufficiently uniform. Mach fails to notice that this explanation—that is, the assumption of the uniformity of nature—contradicts his basic idealistic premises. In reality, this uniformity is precisely the fact of the objective regularity of the course of natural processes, without which no uniformity is possible.

The situation is no better when it comes to the theories of the Russian Machists. Instead of objective laws, they see only social consensus, whereby a law is nothing more than the majority's recognition of their agreement on a particular concept. The whole essence of this view boils down to the idea that order exists only in the minds of people striving, in one way or another, to bring reason to the chaos of the world. L.I. Axelrod rightly observes in his critique of Machism that the opposite is true: there is order in the world itself, whereas in the minds of philosophers there is very often chaos. Thus Lenin arrives at the final conclusion: *'that there exists a natural, objective connection between the phenomena of the world; of this there is no doubt'* (Vol. 10, p. 126). *'The idea that cognition can "create" universal*

forms, replace primordial chaos with order, and so on, is an idea of imperialist philosophy. The world is the regular motion of matter, and our cognition, being the highest product of nature, is capable only of reflecting this regularity' (Vol. 10, p. 137).

SPACE AND TIME

'By acknowledging the existence of objective reality, i.e. moving matter, independent of our consciousness, materialism must inevitably also acknowledge the objective reality of time and space, in contrast, first and foremost, to Kantianism, which in this matter sides with idealism, regarding time and space not as objective reality, but as forms of human contemplation' (Vol. 10, p. 142). According to Kant, objects of experience, i.e. phenomena, are products of the processing of sensory data by the a priori concepts of both our sensibility and our reason. According to Kant, it follows that the world is not situated in space, that space in itself is not at all something external, but is a mode of relating sensory data. Mach speaks in the same vein. ***'Space and time are ordered systems of series of sensations.'*** It follows that

'It is not man who, through his perceptions, exists in space and time, but space and time that exist within man, depend on man, and are generated by man.' This is how Lenin assesses Mach's theory of space: Yet Mach himself senses the fragility of his doctrine and makes the reservation that our concepts of space and time are changeable, that new discoveries compel us to alter these concepts, and that our conceptions of time and space serve to orient us in the world. However, one might ask: if we are indeed able to orient ourselves with the help of these concepts, is this not a consequence of the fact that they reflect actual space and time? It is clear that Mach's erroneous theory of space and time is a necessary consequence of that fundamental error which consists in the assertion that our sensations are not images of external things.

Mach criticises Newton's theory of absolute space and time. That Newton's theory of absolute space and time does not accurately reflect the latter,

is, of course, possible. Philosophical materialism does not insist on the absolute accuracy of one theory or another. It insists only that space and time must actually exist outside human consciousness. Our concepts of space and time, of course, evolve. But they reflect real space and time, reflect them with varying degrees of accuracy, and are drawing ever closer to objective truth. *'Human conceptions of space and time,'* writes Lenin, *'are relative, but from these relative conceptions the absolute truth is formed; these relative conceptions, as they develop, follow the line of absolute truth and draw closer to it'* (Vol. 10, p. 143). The mutability of our concepts of space and time does no more to refute the objective reality of the latter than the mutability of our concepts of the structure of the atom does to refute the objective reality of either the atom itself or of nature in general.

Mach also expresses doubt regarding the three-dimensionality of atoms. That such a view serves only to abolish materialism is quite obvious. Mach wishes to 'overcome' both idealism and materialism. However, in reality he 'abolishes' materialism and thereby inevitably opens the door to idealism and clericalism.

The Russian Machists expressed this idealistic view of space and time as follows: space and time are forms of social coordination of the experiences of different people. When speaking of the objectivity of space and time, they mean that everyone's conceptions of space and time are identical; this, in their view, is the essence of the objectivity of space and time. For them, objectivity means nothing more than universal validity. For the idealists, the opposite is true. Instead of explaining universal validity—that is, the uniformity of human conceptions of space and time—by the fact that people derive their impressions from the same object, idealists, on the contrary, take universal validity as a starting point that cannot be further analysed and 'derive' 'objectivity' from it. Therefore, one should not confuse the historically evolving human concepts of space and time, as well as of matter, with the objectivity of time itself, of space and of matter.

'The scientific doctrine concerning the structure of matter, the chemical composition of food, the atom and the electron may become obsolete,' says Lenin, 'and is becoming so with each passing day; but the truth that a person cannot feed on thoughts and bear children through Platonic love alone cannot become obsolete' (Vol. 10, p. 152).

The theory of space and time, as one can easily see, is inextricably linked to the fundamental question: are our sensations reflections of nature, or is nature a complex of our sensations? Anyone who acknowledges the reality of the external world cannot but acknowledge the reality of space and time. Our concepts of space and time have indeed changed in the course of the development of natural science, and have changed particularly under the influence of the expanding practical activities of humankind, which has come to master ever-greater expanses of space. The development of astronomy and the invention of giant telescopes have undoubtedly broadened—and will continue to broaden—our concept of space time and again. Therefore, like any scientific concept, the concept of space is increasingly adapting to objective space and reflecting it ever more fully.

III.

LENIN'S VIEWS ON DIALECTICS

In full agreement with Marx and Engels, Lenin consistently follows a dialectical and materialist line throughout, demonstrating in practice that only this line provides a method for the effective resolution of age-old fundamental questions of cognition. Dialectical materialism provides sober scientific answers to questions of knowledge in every instance, exposes mysticism everywhere, and drives out clericalism from wherever it may be hiding.

Dialectical materialism does not claim to articulate 'eternal', definitive or ultimate truths. Materialism maintains that matter is primary and that thought is secondary, being a product of the most highly organised form of matter. Dialectical materialism differs from earlier forms of materialism in that the processes of the world constitute an eternal forward movement, a development, and that this development occurs through the interaction and mutual interpenetration of opposing forces. But dialectical materialism by no means asserts that any historically emerged picture of the world is an absolute reflection of reality. Yesterday, chemistry knew only of atoms and regarded them as homogeneous and indivisible. Today we know that the atom is divisible, that it constitutes a small but complex world, and that the elements of this world are electrons. But this is only true today. It is possible that the electron too will sooner or later be revealed as a complex system, for it is just as inexhaustible as celestial bodies. Dialectical materialism not only does not object to such constant change and deepening of our scientific picture of the world, but directly presupposes it and, in a certain sense, foresees the path of further development. Thus , *'materialism, just like idealism, has passed through various stages of development. It has to take on a new form with every new great discovery that marks an epoch in the natural sciences'* (Engels. L. Feuerbach. p. 36).

Before discussing the laws of dialectics, a few words must be said about the laws of formal logic. With the triumph of dialectical materialism, as the general

theory of method in both the natural sciences and the social sciences (i.e. the theory of the general laws of the development of nature and society), philosophy in the old sense of the word ceases to exist. It will no longer be a science standing above the other sciences. All that remains of philosophy is formal logic and dialectics.

What is formal logic? It is usually defined as the study of the laws of thought. Logical thinking — from this perspective — is essential for anyone who wishes to think correctly, that is, to arrive at conclusions that correspond to reality. It was once thought that the old, that is, non-dialectical, or, as it is commonly called, formal logic, truly provides all the guidance necessary for correct thinking. But we shall see below that this is far from the case, that formal logic is very far from exhausting all the laws of correct thinking. On the contrary, it provides rules that are valid only within a very narrow scope of application, namely, when it comes to things at rest, or, to put it more precisely when ‘complete’ things.

What are the laws that serve as the principles of so-called formal thinking, and what is formal thinking?

Before answering this question, it should also be noted that formal logic alone is incapable of providing adequate guidance for the study of processes. It is necessary, but insufficient. Since it considers things not in the process of their becoming, but in their finished form, it follows that it can only be part of a more powerful tool for research work. However, within that limited sphere which may be called the sphere of finished things, formal logic remains valid. This must be understood in a conditional sense, for things cannot be separated from the processes to which they owe their origin. But since finished things can and must be regarded as the result of processes, as their relative limit, the relationship of formal logic to dialectics can be characterised as follows: formal logic represents an extremely simplified case of dialectical logic. Plekhanov is quite right when he says: ‘Just as rest is a particular case of motion, so and thinking according to the rules

formal logic is a special case of dialectical thinking.

We will now move on to a brief summary of the three so-called 'fundamental laws of thought'. They are as follows:

1) the law of identity; 2) the law of contradiction; 3) the law of the excluded middle.

The law of identity states: every thing is identical to itself, or, to put it symbolically, $A = A$. Here, A stands for: every thing. Anyone capable of even a modicum of dialectical thinking will readily see that, whilst this law is correct, it holds true only within the narrow scope I have mentioned. It holds true for a phenomenon at rest. It goes without saying that no phenomenon is ever in absolute rest, that one can speak of rest only conditionally, since it is reasonable to assume that it will not change noticeably over a very short interval of time. But we also have a more precise formulation of the law of identity (as well as the other two laws) from Engels, which states: 'Like all metaphysical categories, abstract identity is only suitable for domestic use, where small relationships or short intervals of time are considered.'

The law of contradiction states that two propositions that contradict each other cannot both be true. For example, 'man is mortal' and 'man is immortal' are contradictory propositions. One proposition contradicts another if it negates it. It is not difficult to see that this law, too, is true only insofar as things are considered as fixed. For as soon as we speak of motion, the law of contradiction does not retain its former meaning. By motion is meant that a body is constantly changing its position, and therefore it does not remain at any one of these positions; it is both at a given place and not there. Therefore, from the perspective of this second law of formal logic, motion is a contradiction.

The contradictory nature of motion attracted the attention of thinkers relatively early on. As early as in ancient Greece, a school of the so-called Eleatics arose, which discovered that motion contradicts the fundamental law of thought (since they believed that no other logic exists apart from what we call formal logic). Zeno, one of

One of the leading figures of this school, Zeno, drew upon the contradictory nature of motion to formulate a series of arguments that contradicted the very existence of motion—that is, arguments that undermined the possibility of motion. Zeno devised these to demonstrate that one must choose between empirical phenomena—namely, motion—and the laws of formal logic, for both cannot be true at the same time. And although the beginnings of a more general, namely dialectical, logic (the logic of Heraclitus) already existed at that time, Zeno preferred to reject motion rather than abandon such a clear, elementary principle of reason as, in his view, the principle of contradiction represents. But the contradiction inherent in the problem of motion is, of course, not resolved by Zeno in this way. The mere negation, the rejection of motion—the most general phenomenon of nature—cannot be regarded as a solution.

The law of the excluded middle states: of the excluded middle, two contradictory propositions cannot both be false. It is customary to combine the laws of contradiction and the excluded middle into a single proposition, which states: of two contradictory or opposing propositions, only one can be true; if one is true, the other is false, and vice versa.

These three laws of formal logic are commonly referred to as the laws of thought. But it is evident that they are by no means the laws of all thought, but only of that which deals with phenomena of rest or imperceptibly small changes over a short interval of time. On the other hand, these laws are not only laws of thought concerning rest, but also the fundamental laws of rest itself, i.e. objective, albeit limited in their scope, laws of reality itself. They contain statements about all things, insofar as they are considered unchanging, including the results of thought. The laws of formal logic thus also constitute the laws of representations, concepts, judgements and inferences, since these are regarded as the finished products of thought processes.

The question arises as to what laws express the fundamental properties of motion, and what the relationship is between these two sets of laws. The fundamental laws of motion—where ‘motion’ is understood to include any form of change—constitute the fundamental laws of dialectics.

We know of three such laws: 1) the law of the transition from quantity to quality and vice versa; 2) the law of the mutual interpenetration of opposites; 3) the law of the negation of the negation.

All these laws were developed by Hegel. But Hegel understood them in an idealistic sense. Hegel proceeded from the abstraction of the absolute concept. He abstracted the latter from the ordinary human concept, but separated it from man and proclaimed it under the name of the absolute idea or the absolute spirit. Matter and spirit are both forms of the existence and development of the absolute idea. The absolute idea existed even before the creation of the world, and the world arose from it through its self-development. In the first stage of this development, the idea is unaware of itself, becomes alienated from itself, and Hegel regarded nature as this idea that had become alienated from itself. But the Idea does not stop at this stage of development; rather, it develops further, manifests itself as an organism, and passes through stages from plant life to its culmination in human thought. For Hegel, the history of humanity represents precisely this constant process of ascent, of the absolute spirit's return to itself. All this development culminates in an awareness of the entire long path of development—in Hegel's own philosophy, in which he realised the whole of this path of the idea's self-development. Thus, Hegel created a monistic worldview on an idealistic basis, for according to him, a dialectical process of development takes place in both nature and history according to the same laws. Moreover, the identity of these laws for nature and history is based on the fact that both nature and human history represent merely different phases, the lower and higher stages of the self-development of the absolute idea. Apart from it, nothing exists in the world. All phenomena, both natural and historical, represent only different phases of the self-activity of the absolute idea. It follows from this that the laws of these phases are essentially identical. As long as the idea moves in the form of nature, or, as Hegel put it, moves in its otherness, it is unaware of itself. The forms of its movement in the stage of alienation are less complex than in later stages of development. In short, Hegel, as a consistent idealist, explains nature from the absolute concept, its processes as snapshots of the concept's progressive self-movement. For Hegel, the concept signifies not a subjective representation in the human

mind, but an absolute, pure concept, a concept without consciousness, without the 'I'. The entire process of its self-development takes place not in space and time, but in some unknown place, and in any case independently of human will and thought. On the basis of his central idea, Hegel developed a vast philosophical system with remarkable consistency. This system is the most consistent idealist system in the entire history of philosophy.

When Marx was studying at university in Berlin, shortly after Hegel's death, he became acquainted with Hegel's philosophy, which was dominant in Germany at the time. A number of Hegel's pupils were active in German universities. Some of his followers remained faithful to Hegel's original line; these were the so-called Old Hegelians. But another group took a critical view of their teacher's teachings — these were the Young Hegelians. Thus a split occurred. The first group consisted of reactionary ideologues who accepted Hegel's entire system. The Young Hegelians attached greater importance to Hegel's method than to the system which Hegel had created on the basis of his dialectical method. The struggle between the two factions flared up over the interpretation of religion. From the perspective of orthodox Hegelianism, religion represents one of the highest stages of the self-consciousness of the absolute spirit. Hegel placed only philosophy above religion. Owing to this close connection between religion and philosophy in Hegel's system, it appeared that Hegel's entire system constituted a justification of religion, and in particular of the Christian religion. The Young Hegelians—the left wing—were representatives of the German bourgeoisie, which at that time was still politically rather uninformed. The feudal-monarchical reaction had drastically narrowed the arena of the bourgeoisie's political struggle for political power. Due to severe censorship, it was very difficult to voice open criticism of the existing state.

In the early 1840s, the radical bourgeoisie founded a newspaper called the **Rheinische Zeitung**, which, albeit cautiously, began this struggle. The fact that the Young Hegelians' arguments were cloaked in philosophical rather than political terms '*served merely to throw the censors off the scent*' (Engels). Therefore, the main struggle was directed against religion. Johann Strauss published the book **The Life of Jesus** (1835). Then Bruno Bauer spoke out, and a dispute began

between him and Strauss regarding the origin of the Gospel accounts of miracles: had they arisen through unconscious mythological creativity within the Christian community, or had the evangelists themselves invented them? The publication of Ludwig Feuerbach's work **The Essence of Christianity** made a huge impression. In his book, Feuerbach declared war on idealism, including Hegelian idealism, within the bosom of which he had been brought up. Feuerbach boldly proclaimed the primacy of nature over thought. Man and his consciousness are part of nature. God and all the 'higher beings' in religion are creations of the human imagination. They are merely fantastical reflections and exaggerations of human nature. Revolutionary-minded young people immediately rallied to Feuerbach, including Marx and Engels. Thus, Hegel's school finally disintegrated. Feuerbach's historical significance in the bourgeois-democratic movement in Germany is great. But Feuerbach, who criticised Hegel and, along with him, idealism in general, had a major shortcoming. He broke completely with Hegel's philosophy, casting it aside entirely. But to cast aside any great system, even an idealistic one, does not mean to eliminate it. This is particularly true of Hegel's system, which had such an enormous influence on the entire German nation. Hegel's philosophy, apart from being an idealist—that is, reactionary—system, contained another extremely valuable element: his dialectic. The historical task of utilising Hegel's dialectic was accomplished not by Feuerbach, but by Marx.

I have outlined, albeit very briefly, the development of Hegel's philosophy. The reader may find further details in Engels' classic work **L. Feuerbach**. This is necessary so that the reader may understand the history of the emergence of modern materialism—the materialism of Marx and Engels, that is, Marxism. Without such an account—albeit brief—of the development of German philosophy in Hegel and his school, it is impossible to understand Marxism, for Marxism is a synthesis of the old materialism of the 18th century and the materialistically transformed Hegelian dialectic. Dialectics is the very essence of the method of the highest form of materialism—Marxism.

Let us now turn to how Marx transformed Hegel's idealist dialectic into a materialist dialectic.

I have already said that Hegel's dialectical method is idealistic, because the starting point of his philosophy is the Absolute Spirit, whilst nature is secondary, being a manifestation of the Spirit. Such a doctrine is contrary to the fundamental tenet of all materialism. Therefore, materialism had to discard the absolute spirit as a completely idle fiction. Marx restored nature to its rightful place in its material sense, i.e. not as something derived from the spirit, but as the foundation of everything. Marx himself characterises his divergence from Hegel in the afterword to the second edition of the first volume of **Capital** with the following words: *'My dialectical method is not only fundamentally different from Hegel's, but is its direct opposite. For Hegel, the process of thought, which he transforms—under the name of the Idea—into an independent subject, is the demiurge (creator) of reality, which represents merely its external manifestation. For me, on the contrary, the ideal is nothing other than the material, translated and reworked in the human mind. I criticised the mystifying aspect of Hegel's dialectic nearly thirty years ago, at a time when it was still in vogue. But precisely at the time when I was working on the first volume of *Capital*, the shrill, pretentious and narrow-minded epigones setting the tone in contemporary bourgeois Germany took particular delight in treating Hegel as the valiant Moses Mendelssohn had once treated Spinoza in Lessing's day—namely, as a 'dead dog'. I therefore openly declared myself a disciple of this great thinker and, in the chapter on the theory of value, continued to flirt somewhat with Hegelianism, using his characteristic terminology here and there. The mystification to which dialectics was subjected in Hegel's hands by no means prevented Hegel from being the first to provide an exhaustive and conscious picture of its general forms of movement. In Hegel, dialectics stands on its head. It must be set on its feet in order to reveal the rational kernel beneath the mystical shell. In its mystified form, dialectics became fashionable in Germany, so as, apparently, provided the opportunity*

to cast a veil over the existing state of affairs. In its rational form, dialectics inspires in the bourgeoisie and its doctrinaire ideologues nothing but anger and dread, since its positive understanding of the existing order simultaneously encompasses an understanding of its negation, its inevitable demise; it regards every realised form in motion, and consequently also from its transitory aspect, since it bows to nothing and is, by its very nature, critical and revolutionary."

I have given this somewhat lengthy quotation because there is no better characterisation of the difference between Marx's and Hegel's dialectical methods. From this quotation we see what the main point of this difference is. According to Marx, it was Hegel who first developed the general forms of dialectical motion in an exhaustive and conscious manner. Marx, however, had to set it on its feet, that is, set it on a materialist footing, for in Hegel's hands, dialectics, being idealistic, stood on its head.

THE LAW OF THE TRANSITION OF QUANTITY INTO QUALITY

The three laws of dialectics mentioned above speak of the general laws of motion and development. The law of the transition of quantity into quality and the reverse transition of quality into quantity points to the dialectical connection between quality and quantity. Every phenomenon contains within itself, in unity, both quantitative and qualitative aspects. Everything that exists in space and time possesses a complex interweaving of different qualities. A thing that possesses no qualities is not a thing, but merely an abstraction. On closer inspection, it turns out that no thing remains in an identical, unchanging state, but is constantly changing. As it changes, a thing passes from one state to another, i.e. moves, and in this movement reveals its essence, its real properties. But, strictly speaking, nature does not consist of separate things at all. We can speak of the latter only conditionally, in the sense that we, as human beings, are compelled to extract them from the universal connection in which they exist, representing the aggregate a single

the universal process. Individual things are only conditionally independent, since we are able to isolate them from one another more or less precisely in our laboratories. They are independent only to a greater or lesser extent, not completely, because all parts of the universe, even if they are separated by cosmic distances, exist only in relation to one another, and without this mutual connection they do not exist at all. The material parts and particles of the universe are in constant motion. They are constantly changing their relationship to one another. All these different forms of motion and change are, in a word, their quality. But no quality exists without a specific quantitative characteristic. Movements differ from one another, first of all, qualitatively; and then two qualitatively identical forms of movement may differ from one another quantitatively. Two bodies moving uniformly and in a straight line may have different speeds in terms of magnitude and direction. Thus, they are qualitatively the same, but quantitatively different. It is also possible that two motions exhibit the same speed, yet are qualitatively different, as, for example, when one body moves uniformly, say, at a speed of 10 metres in a circle, whilst another body moves at the same speed in a straight line. Rectilinear and rotational motion represent two qualitatively different forms of motion. Speed should be understood as the distance a body travels per unit of time, for example, per second, minute, hour, and so on. If the distances travelled by the body per unit of time are the same throughout the entire course of the motion, then we call the motion uniform and its speed constant.

How can we define more precisely what these qualities and quantity? Such definitions are very difficult to provide, as quality and quantity are extremely general concepts, and it is impossible to reduce them to even more general terms. Therefore, since a definition is understood as reducing one concept to another, more general one, it is impossible to provide definitions of quality and quantity. But one can describe their relationship, or more precisely define quantity through quality. Quantity represents a form of quality.

'A number,' says Engels, 'is the purest quantitative definition known to us. But it is full of qualitative differences... Prime numbers (e.g. 1, 2, 3, 5, 7, 11, 13, etc. — A.V.)

“impart new specific qualities to numbers obtained by multiplying them by other numbers” (“The Dialectics of Nature”. Marx-Engels Archive. Vol. 2, p. 83. Our italics. — A.V.). (In arithmetic, a prime number is understood to be an integer divisible only by one and by itself.) We speak of a quantity of a certain quality in the sense that the quality of one thing, compared with the same quality of another thing, is greater, lesser, or equal. Two metres of cloth of a certain quality are equal to two metres of another piece of cloth of the same quality. But it is not difficult to understand that, when speaking of the qualitative identity of two pieces of cloth, we always understand this expression to mean only approximate sameness. There is never absolute identity in every respect between two complex things. We regard two complex things as practically identical if their physical and chemical properties do not exhibit such a difference that can be detected in a noticeable manner in the way they affect some third thing. Therefore, one can speak of objects that are qualitatively identical but quantitatively different. Such objects can be regarded as qualitatively identical, but possessing a greater or lesser quantity of that quality. This means that we can abstract from its quality altogether and examine only its quantitatively different values. Any quantity of a certain quality can serve as a scale or measure for determining another quantity of the same quality. If I buy apples, since the apples will be identical, say in weight and taste, I can disregard these qualities and compare one pile of such apples with another pile and determine which of these two piles consists of a greater number of units. In this way, we arrive at the concept of a unit, which is nothing other than the simplest scale for measuring quantities. Since we disregard the fact that comparable objects are not exactly identical in quality, we shall treat them as identical units, differing in no way from one another. This, of course, will be merely an abstraction, because in reality we will never find two such complex objects about which we could say with absolute certainty that they represent an absolutely identical quantity of some identical

qualities. Objects are processes, that is to say, they are constantly changing. Therefore, when I measure the length of one object using a ruler made of some kind of wood, both the ruler and the object being measured are, of course, changing during the measurement. Temperature itself changes constantly and alters the length of things. But since these changes are very slight, we disregard them and speak of their identity with themselves. Only through such a long chain of abstraction can we mentally separate quality and quantity from one another. A dialectical understanding, whilst allowing for abstraction, certainly requires that we never forget that this is merely an abstraction. In reality, there is no quality without quantity, just as there is no quantity without quality. They are interdependent.

The first law of dialectics states that quality passes into quantity and vice versa. A qualitatively defined thing constitutes a process. When we speak of a thing, we mentally fix some stage or phase of this process, mentally suspending the process. But we know that in reality it does not stop. A process implies a change of state. Since a state changes only quantitatively, the change can be either a decrease or an increase in that quantity. Temperature alters the length of a rod and, in general, alters the shape of objects. If the temperature rises, the distance between its molecules increases at the same time; at a certain temperature, a substance changes from a solid to a liquid. If the temperature increases further, the liquid ceases to be a liquid and turns into a gas. Thus, we see that a quantitative increase in the temperature of a substance at a certain stage of this process entails a qualitative change in it, altering its state of matter. Here an example of a continuous quantitative change from one quality to another. The example given also shows that the transition from one quality to another does not occur continuously. It does not occur continuously because between the quality from which the process begins (at the start of the observation) and the quality into which it transitions, there are either no other qualities at all, or only a finite number of them. (For example, the solid and liquid states of substances.)

Let's take another example. If we throw an object upwards, it will reach a certain point in its ascent and from there fall downwards, hitting, say, the ground. In the language of mechanics, this means that the object, which possessed the energy of motion—so-called kinetic energy—transferred this energy to the ground. In doing so, the kinetic energy manifested itself in a new form, as heat. The transformation of energy from one form to another signifies the emergence of a new quality. The forms of energy (mechanical motion, heat, electrical energy, chemical energy) differ qualitatively from one another. The law of conservation of energy provides us with a good example of the dialectical relationship between quality and quantity. This law states that the total energy of any body or system of bodies is constant, i.e. that energy cannot be created from nothing. When, for example, kinetic energy decreases, another form of energy increases as a result of this decrease, such as positional energy, so-called potential energy, and so on. The famous physicist of the last century, Joule, formulated a quantitative law governing the conversion of kinetic energy into thermal energy. It turned out that the work required to lift a weight of 427 kilograms to a height of 1 metre is equal to the amount of heat sufficient to raise the temperature of one kilogram of water by 1 degree. The same dialectical relationship can be observed in the field of chemistry. Two hydrogen atoms and one oxygen atom form a molecule of a substance, water, which is qualitatively different from both hydrogen and oxygen. If, instead of one oxygen atom, two atoms, we obtain a different substance, perhydrol, H_2O_2 , which has a completely different, pungent taste. As can be seen from this example, a quantitative change in the number of these same atoms—their reduction—leads to the formation of a qualitatively different substance.

The great significance of the law of the transition from quantity to quality is even more striking in the phenomena of the origin of living matter. When carbon combines with certain elements (hydrogen, oxygen, etc.) in specific quantitative ratios, various organic substances—that is, living bodies—arise. Although chemistry is not yet able to provide a quantitatively precise ratio of the constituent

components of protein, there can be no doubt that protein is a chemical compound—albeit a very complex one—of certain elements. The same elements, in different combinations and in different quantitative ratios, constitute non-living bodies. The transition from the realm of non-living matter to the realm of organisms represents an unquestionably decisive change in quality. And it is subject to the law of dialectics.

This law manifests itself in an even more complex form in the realm of social phenomena. A change in the social form, i.e. its replacement by the organisation of a new social order, represents the most important, yet also the most complex, type of transition from one quality to another. Such a transition takes place even more gradually than the changes in the natural world we have discussed. The overthrow of capitalism and the victory of socialism occur through revolution. But of course this revolution does not take place in a single day, but requires an entire historical epoch. There is a gradual build-up of the preconditions for the new social order within the bowels of the old, which finally matures to the point where, on the basis of changes in the economic structure of society, the shell (the political and, more generally, ideological superstructure) of the old social order must burst. Such a massive upheaval takes place over a more or less extended period. Marx calls it the transitional period from capitalism to socialism. It is in this period that civilised humanity currently finds itself.

It is clear from all that has been said that, without the law governing the transition of a quality (whilst the quantitative ratios of its constituent elements remain constant) into a new quality, it would be impossible to understand either natural phenomena or social phenomena and their development. It is also easy to see that transitions in different fields of phenomena vary in complexity. The transition of kinetic energy into potential energy is less complex than the transition of the same energy into heat. All transitions in the realm of nature are less complex than those observed in the realm of social phenomena. No one understood better than Lenin the necessity of taking the utmost account of all the particularities of the transitions under study. The laws of dialectics did not appear to him as mere templates or dead formulas. Some (bad) Marxists think that it is sufficient to establish the main laws of dialectics, and

An understanding of all phenomena is already guaranteed in advance, regardless of the specific nature, place and time of the processes in question. Lenin described such a view not as the application of Marxism, but as its trivialisation. *'If, when assessing revolutionary periods,'* says Lenin, *'we confine ourselves to determining the course of action of the various classes without analysing the forms of their struggle, then our reasoning will be incomplete and undialectical from a scientific point of view, and from a practical-political point of view it will degenerate into dead sophistry.'* A few lines earlier, he characterises the distinctive nature of revolutionary periods as distinct from peaceful ones.

'Revolutionary periods differ from periods of so-called peaceful development from periods when economic conditions do not give rise to deep crises or generate powerful mass movements, in that the forms of struggle during the former are inevitably much more varied, with the direct revolutionary struggle of the masses prevailing over the propaganda and agitation activities of leaders in parliament, the press, and so on.' (Vol. 11, Part 1, p. 77).

The specific laws applicable to certain historical phases of humanity (slavery, feudalism, capitalism) and even to certain stages within the same phase cannot be 'derived' from the dialectical laws common to all phenomena. They can only be abstracted from the historical facts themselves. Special laws are nothing other than objective, living connections independent of the individual, highly dynamic and changeable real relations between living, developing classes. This is why Lenin so tirelessly insists that Marxist dialectics is not a dead dogma, nor some finished, ready-made, unchanging doctrine, but a living 'guide to action'. This important proposition, repeatedly emphasised by Engels himself, must never be forgotten by anyone who seeks to truly understand history, the class struggle, and the processes of nature. *'The tendency to seek answers to specific questions in a simple logical development of the general truth about the fundamental character of our revolution is a trivialisation of Marxism,'* says Lenin (Vol. 3, p. 10).

THE LAW OF THE MUTUAL INTERPENETRATION OF OPPOSITES⁹

Before proceeding to the exposition of the second law of dialectics, we must first discuss the connection between it and the first law. Dialectics, as the study of the general laws of motion in nature and society, is by its very nature a historical science, that is, a study of the history of the development of nature and society. It seeks to uncover the all-round connections within the immeasurably complex web that is reality. It is not difficult to understand that it must apply its general methodological principle of discovering all-round connections to its own doctrine as well. This means that the laws of dialectics are themselves in a living connection with one another. Dialectics teaches that there are no isolated, mechanical, physical, chemical or biological phenomena. In the same way, the laws of dialectics operate in constant interdependence with one another. Similarly, in nature, the laws of mechanics, physics, chemistry and biology operate in unity and are inseparable from one another. The aim of science is to provide a rational explanation for the emergence of qualitatively new processes within the depths of qualitatively different phenomena, and to study the laws of their development, inevitable change and demise. The significance of all scientific research lies in the fact that only such study makes it possible to foresee what will happen and to consciously influence the direction in which processes are developing. Thus it becomes possible to accelerate the pace of development and, on the basis of recognised laws, to cause them to change in the direction we desire. The first law of dialectics speaks of qualitative change, brought about by gradual quantitative changes occurring within a given system. But it goes without saying that one can speak of any particular system only in a very conditional sense. Nature and society do not constitute a collection of isolated systems that could exist independently of one another, but a living unity. In reality, at any given moment, everything

⁹ This is how Engels refers to this law in his book **The Dialectics of Nature**.

moments are necessary. Although they are constantly changing, they change in a regular manner.

Systems interact with one another, and any changes in them are due precisely to these interactions. When, for example, kinetic energy is converted into potential energy, the existence and interaction of at least two bodies, or two systems of bodies, is necessary. When a body is thrown upwards, its kinetic energy constantly decreases, whilst the distance of the thrown body from the ground continues to increase. The body acquires ever more potential energy in relation to the ground. Modern society consists of different classes. Of these, the bourgeoisie and the proletariat are of decisive importance. It is clear that they presuppose one another, that they are in constant interaction in the form of their struggle. The second law of dialectics provides a new, incomparably deeper understanding of the law of causality. It offers a dialectical generalisation of this law. Dialectics teaches that reality is woven from contradictory, mutually contending elements. A unified whole develops by virtue of its contradictory, antagonistic elements. Analysis cannot do without a clear, mental distinction between these moments. But a true understanding arises only if one bears in mind that the division of the whole is merely the first stage of cognition and that its wholeness also requires the restoration of their unity. *'The division of the whole,' says Lenin, 'and the cognition of its contradictory parts... is the essence, one of the "essences", one of the fundamental, if not the fundamental, features or characteristics of dialectics. This is precisely how Hegel frames the question... The identity of opposites (or rather, their 'unity'...) is the recognition (discovery) of contradictory, mutually exclusive, opposing tendencies in all phenomena and processes of nature, and of the spirit, and of society as well'* (Lenin. "On the Question of Dialectics". "Bolshevik". No. 5–6. 1925).

THE FIRST AND SECOND LAWS OF DIALECTICS AND THE CATEGORY OF LEAP

Development is a 'struggle' between opposites. Lenin emphasises the significant difference between the so-called evolutionary view of the world and dialectics. Evolution

understands development as a decrease and an increase, i.e. merely as a quantitative change, as a repetition of the same quality. Dialectics, on the other hand, understands development as the unity of opposites. This unity consists of two inseparable aspects: the division of the whole into mutually exclusive opposites, on the one hand, and the relationship between them, on the other. *'The evolutionary point of view is dead and impoverished,'* says Lenin. It is incapable of explaining the emergence of a new quality. Dialectics, on the other hand, provides the key to understanding the very essence of all processes. It provides the key to the emergence of a new quality from within the depths of old qualities. Or, to use the accepted term, dialectics provides the key to leaps, *'to the interruption of gradualism'* (Lenin). Thus, the unity of opposites is only conditional and temporary; it is constantly interrupted and disrupted by the struggle of mutually exclusive opposites. Only this struggle—that is, the universal development of all reality in view of mutually exclusive opposites within a unity—is absolute. Marx's dialectic explains the development of every phenomenon through its interaction with the entire environment, rather than by means of some external source (such as, for example, God). Development occurs thanks to the laws inherent in the developing entity itself. Therefore, every development is 'self-movement'. This means that nature should be understood from within itself, and not through the action of some external agent (God). Such an agent cannot exist at all according to the laws of nature.

Lenin illustrates his excellent exposition of the law of opposites with a classic example from Marxist theory of capitalist production. Given its great persuasiveness, we reproduce it here as a quotation. *'In *Capital*, Marx first analyses the simplest, most common, most fundamental, most widespread, most everyday, and most frequently encountered relationship in bourgeois commodity society: the exchange of commodities. This analysis reveals, in this simplest phenomenon, in this 'cell' of bourgeois society, all the contradictions (the seeds of all contradictions) of modern society. The subsequent exposition shows us the development (and growth and movement) of these contradictions and of this society, in the sum of its main parts from its beginning to its end.'*

With this example, Lenin explains how the unity of opposites is concealed even in such a general and simple phenomenon as the exchange of commodities in capitalist society. This most elementary phenomenon of bourgeois society already contains within itself—at least in embryo—all the gigantic contradictions that are eating away at the capitalist system. The exchange of commodities between seemingly independent contracting parties determines their competition in the market. Competition, in turn, leads to the ruin of some entrepreneurs and the enrichment of others. Thus there occurs mass impoverishment, the proletarianisation of certain sections of the population, and an ever-increasing concentration of the productive forces in the hands of a tiny handful, in the hands of the big bourgeoisie. The growth of production and the exchange of goods increasingly swells the ranks of the proletariat, that is, a class which does not itself own the means of production and must therefore sell its only asset: its labour power. Thus, under capitalism, the proletarian class grows ever larger. But on the one hand, the impoverishment of this class is also increasing, whilst on the other, the capitalist class is steadily diminishing due to the process of concentrating all the means of production in the hands of this insignificant minority of the entire population.

At an even higher level of this social process, which is advancing amidst constant and unprecedented contradictions, capitalism itself is transforming its form and moving away from its classical form, based on free competition, to a new form, monopoly capitalism. However, monopoly by no means signifies the end of cut-throat competition. On the contrary, monopoly reproduces competition on an even greater, now global, scale. The capitalist class of one country, having emerged victorious from the struggle of competition, is pitted against the same class in another country. Highly organised capitalist production cannot exist without external markets, without colonies, which serve simultaneously as a source of raw materials, a market for goods, a source of cheap labour in the form of colonial slaves, and a source of super-profits. But since, at a certain stage of capitalism's development, all the colonies have already been divided up, a struggle between the strongest capitalist countries for a new division of the world is inevitable. This struggle, arising

economic necessity, inevitably turns into war, this time a universal one, affecting the population of almost the entire globe. The era of world imperialist wars begins.

In these brief words, I have endeavoured to set out Lenin's view of the monopolistic phase of capitalism as the result of the development of the contradictions within the capitalist system. On this subject, he wrote a profound pamphlet: 'Imperialism, the Highest Stage of Capitalism'.

In the example given, the deadly contradictions of the capitalist system stand out in a classic manner. It took the genius of Marx and Lenin to uncover and reveal the seeds of contradictions, fraught with such enormous consequences, hidden in a phenomenon that at first glance appears as harmless and ordinary as the exchange of goods in capitalist society.

But Lenin derives a further series of crucial consequences from the law of the unity or interpenetration of opposites. The first conclusion: a dialectical explanation of a contradictory, dialectical process is a true reflection of the latter. The dialectic of explanation and exposition is merely a reflection of that objective dialectic which is revealed in the processes themselves. It is not a fabrication, nor a 'convenient' hypothesis, but an accurate reflection of what exists and what would have existed even if we had not discovered the laws of these processes. Of course, we must also take into account the very significant changes that occur precisely because we know these laws.

Lenin then draws the conclusion that an individual phenomenon, such as the exchange of commodities, does not exist except in the connection which constitutes their common property. This commonality, says Lenin, like a law, naturally exists only in the particular, through the particular, and between particular phenomena. Therefore, the commonality, the law, is the essence of the particular. A law signifies that which is common, which links individual phenomena that appear to be independent. A law, of course, 'only approximately encompasses all individual objects', for it is their common property. Therefore, no single law exhausts reality. Individual objects 'are linked to one another by thousands of transitions'

‘as individual things’.” Only the totality of all connections, of all laws, encompasses the actual movement of nature and society. Therefore, from the perspective of a single law, a number of properties always appear to be accidental, since they do not obey that very law. But this accident is only apparent, because what is accidental from the perspective of one law turns out to be necessary from the perspective of another.

Just as any phenomenon contains elements of dialectics, so too does any statement about it (i.e. any proposition) already contain elements of the dialectics of cognition. The dialectics of cognition is nothing other than a reflection of the dialectics of nature and society; but since our cognition is also a real part of reality, the dialectics of cognition—subjective dialectics—is a special case of the dialectics of nature and society.

Lenin compares cognition not to a straight line, but to a spiral, i.e. a constantly ascending curved line. Opponents of dialectics cannot for the life of them understand how dialectics can be a methodology of the sciences, a theory of cognition, since it proceeds from the denial of the absolute significance of the principle of contradiction. One can say either yes or no, but one cannot say both yes and no at the same time. Meanwhile, dialectics deals precisely with such statements. The anti-dialectician believes that since things contradict one another, they cannot exist together. He proceeds from the fundamental principle (which he considers unshakeable) that reality itself cannot be contradictory.

Adherents of the anti-dialectical school, denying the existence of an external world independent of us, imagine that they are capable of explaining why the world cannot contain contradictions. Namely, because the world is the product of the creative activity of the laws of our mind. The latter, in their view, contain no contradiction whatsoever. Therefore, the result of their operation cannot contain a contradiction. Since we nevertheless encounter contradictions in our investigation, this means only that we are mistaken. Contradiction is a delusion arising from the limitations of the human mind. So argues the anti-dialectician. But the only truth is that the minds of the opponents of dialectics are limited in that they cannot, or

do not wish to see the real contradictions that exist in the world.

An unbiased person, un corrupted by idealistic misinterpretations is certainly capable of perceiving, objective contradictions.

'Contradiction,' says Lenin, *'...is a living contradiction of living life, i.e. a dialectical, non-verbal, non-fictitious contradiction'* (Vol. 9, Part 1, p. 254). Contradiction implies a delusion only in that instance, if a person

finds it where it is not. But only those who, for one reason or another stemming from class blindness, do not wish to see them can deny real contradictions. For such people, dialectics remains, of course, a book sealed with seven seals.

Lenin pays particular attention to the law of the unity of opposites. He rightly points out that, when expounding this law, Marxists have often treated it merely as a collection of examples, rather than as a law of cognition and a law of the objective world. By this, Lenin means that, in addition to setting out the law through appropriate examples, it is also necessary to demonstrate that it constitutes, precisely, a law of dialectics. And this means that it is essential to demonstrate that the unity of opposites constitutes a necessary component of the general laws of motion. The laws of dialectics reveal their true meaning when we consider them not in isolation, but within the actual context in which they exist. They presuppose one another. Independence, in the full sense of the word, belongs only to the world as a whole. No part, no single phase of the universe's development, possesses complete independence. Individual phases are merely moments of the universal motion of matter, and, isolated from one another, cannot exist. The laws of dialectics reflect the properties of the complex motion of the universe. In reality, only this motion of matter, as a whole, exists, and not its separate moments as some kind of independent processes. Mentally, of course, one can and must isolate them. But one must always remember that such isolation is the result of abstraction. In reality, their wholeness exists. The general laws of dialectics reflect different aspects of the holistic world process and, as a result, they presuppose one another. This is where their essential significance lies. The transition of quantity into

quality is impossible without the interaction of different qualities. Interaction, in its dialectical sense, means the mutual penetration of opposites. Qualities that pass into one another reveal their opposition precisely in this transition. If we arbitrarily take any two qualities without any connection, then, of course, their opposition is scarcely visible. From the point of view of formal thinking, they are often not opposites, but merely unrelated. Yet their lack of relation turns out to be illusory. As soon as we observe that one quality passes into another (it is irrelevant at this stage through what long chain of intermediate stages), we are justified in speaking of their mutual relation and in refuting their illusory lack of relation. The latter appears so only to those who do not see their connection. But since they do indeed pass into one another, their apparent irrelevance vanishes. They stand before us as sources of real, conflicting, i.e. opposing, forces, and, therefore, it is necessary to characterise them precisely as opposites.

Formal thinking is based on the prejudice that a contradiction implies merely the affirmation of a certain phenomenon on the one hand and its wholesale negation on the other. Such a view is entirely untenable. It sets one thing in opposition to all others, with the exception of that one thing. Such an understanding of opposition is extremely narrow and false, because it is precisely in this case that the possibility of transition becomes illusory. Under certain conditions, any process can transition only into a specific process and not into any other. It is entirely legitimate to call both ends of such an actual transition opposing moments, for the transition takes place at the cost of a struggle between them. That is why they are opposed.

The first law of dialectics speaks of the transition of one quality into a new quality as a result of its quantitative change. But it does not speak of the conditions under which such a transition takes place, nor does it speak of the manner of the transition. The second law—the mutual interpenetration of opposites—will provide a precise and clear answer to this question. The transition takes place because every partial system is in continuous interaction with other systems of the world,

of which they represent relatively 'independent' aspects. This is the nature of their connection. Why are we justified in asserting that the universal interdependence of all systems, understood in this way, is thoroughly dialectical? Because only such a concept is capable of overcoming the lifelessness of another understanding of development: the theories of evolutionism. Evolutionism is correct in that it understands the world as a constantly developing whole, requiring no external impetus, i.e. no divine intervention. But it is lifeless, dead and dry, because it fails to see the most essential aspect of universal development. This aspect lies in the fact that development in fact always signifies not merely quantitative change (quantitative growth or quantitative contraction), but also the emergence of something qualitatively new within the depths of the preceding stages of each process. Qualitative change, as Lenin rightly pointed out in the quotation cited, signifies development occurring in leaps during a specific phase of the accumulation of quantitative changes within a single quality, thanks to the interaction of qualitatively different systems. The transition from one quality to another, therefore, does not take place gradually, but precisely through a break in gradualness. Quantitative change may occur continuously, but the transition from one quality to another always takes place by leaps.

Whilst studying Hegel's logic, Lenin compiled his own notes on this extremely important work of philosophical literature; in his notes, he quotes those passages which he considered significant. Of course, he accepts nothing from Hegel without careful analysis and materialist criticism; he endeavoured, as he himself puts it, to interpret Hegel materialistically.

Undoubtedly, that, in interpreting Hegel materialistically, Lenin adopted a number of the latter's propositions. One of the quotations recorded in his notes reads: *'It is said that there are no leaps in nature; and the common conception, if it wishes to understand origin or destruction, assumes, as has been mentioned, that it will understand them by representing them as a gradual arising or vanishing. But it has already been said that changes in being are not, in general, a transition from one quantity to another, but a transition from the quantitative to the qualitative and, conversely, becoming another, a break in gradualness and*

qualitatively different from its previous state of existence. Water does not gradually become solid through cooling, such that it first becomes slushy and then gradually hardens to the consistency of ice, but becomes solid at once... The assumption of a gradual origin is based on the notion that what is coming into being, whilst already existing sensually or in reality, cannot be perceived merely because of its small size; just as, in the case of gradual disappearance, non-being or something else, taking the place of what is disappearing, also exists but is as yet imperceptible; and moreover, both exist, not in the sense that the other is contained within the given other in itself, but in the sense that it takes place as existence, only imperceptible. Thus, origin and annihilation are in general removed, or, to put it another way, the being-in-itself, the inner, in which something is prior to its existence, is transformed into a small quantity of external existence and a substantial difference... into an external, merely quantitative difference'.

In this passage, Hegel quite rightly rejects evolutionism, which consists in the idea that the emerging new quality is mentally attributed to its conditions. The evolutionist believes that the new is at first imperceptible to you solely because of its smallness. In short, evolutionism proceeds from the fundamental premise that every change is merely a quantitative change, a degree of more or less. With such a view, of course, one can do without accepting the discontinuous nature of development. But at the same time, one must abandon a genuine explanation of development. The emergence of the new is not explained by evolutionism, but is taken as a given; it explains only its growth. Evolutionism already presupposes the existence of that which it intends to explain. It is therefore clear that an explanation of the qualitatively new cannot, under any circumstances, do without acknowledging the reality of leaps in development.

Why and how could the evolutionary view have come about? After all, it clearly does not correspond to the actual course of events. Its immediate source must be sought in the history of the development of the natural sciences. Until the end of the 18th century, the only natural science that existed as a rigorous science was mechanics. Chemistry and Biology were still in an embryonic

state. Even physics has not yet definitively discovered the great path along which it is now advancing so triumphantly. Mechanics, however, when dealing with matter, proceeds from a certain abstraction. It assumes that the objects it studies are material, but it is not concerned with the qualitative distinctiveness of material bodies. This does not mean that mechanics must necessarily deny that every body constitutes a qualitatively distinct entity, differing from another body, such as iron from potassium or sodium. Mechanics simply abstracts from the peculiarities of matter, because it does not concern itself with the laws governing these peculiarities. Mechanics, assuming only materiality—that is, extension, impenetrability, inertia, and so on—investigates the various forms of motion of bodies regardless of the material of which they are composed. Mechanics investigates quality in the sense of different forms of motion (for example motion , rotational, etc.), rather than in terms of the specific nature of the material that is moving. Mechanics thus disregards a large number of real material qualities and retains only a few (some of which we have indicated).

It goes without saying that one form of motion, for example rectilinear motion, differs qualitatively from another form, for example from rotation. But mechanics, as an exact science, is not content merely to list and describe these different forms of motion, but precisely studies their quantitative relationship. It calculates the speed and acceleration of motion, the time required to perform it, and so on. These investigations are based on mathematical methods. Speed, acceleration, time, and the shape of the path (the so-called trajectory) are real quantities that are qualitatively distinct from one another. They represent the essential aspects of actual motion. Mechanics is called an exact science precisely because it is capable of calculating the values of these quantities at every given moment of motion. An astronomer, for example, on the basis of Kepler's and Newton's laws, precisely determines the speed of the Earth's motion at any point along its path around the Sun (the so-called Earth's orbit). We call a branch of natural science 'exact' if it is capable of providing not only a qualitative analysis of the phenomena it studies, but also

an exact quantitative relationship between the various qualities at any given moment of motion. Moreover, according to the assumptions of mechanics, at least within known limits, motion occurs continuously. A stone, as is well known, increases its speed as it falls to the ground. The distance of free fall at the end of the first second is approximately 5 metres. During the second second, the stone covers a distance of 15 metres; during the third second, the distance covered is 25 metres, and so on. As can be seen, the speed of fall—and thus the distance covered in a second—increases by 10 metres every second. This increase in speed occurs continuously. If we were to take not a second, but a millionth or billionth of a second as a unit of time, the change in speed would still occur in accordance with the law of proportionality indicated.

Of course, mechanics also deals with qualitative changes, where the form of motion changes under the influence of a particular force, i.e. due to the introduction of a new force. The path, for example, changes from rectilinear to parabolic if a body moving in a straight line at a constant speed on some plane—say, at a speed of one verst per second—reaches the edge of a solid plane (e.g., a perfectly smooth marble table). Falling from this plane, the body ceases its rectilinear motion and transitions to parabolic motion. It is clear that such a transition involves a jump, for there are no intermediate forms between rectilinear and parabolic motion that would be closer to rectilinear motion and would continuously transform rectilinear motion into parabolic motion through an infinite number of qualitatively different non-parabolic links (forms of motion). The transition can be continuous only if, between the beginning and the end of the motion there is an infinite series of intermediate stages, however short the path may be. This is what happens when a body moves along a certain continuous curve. It is impossible to move from one point along the path to another without passing through all the intermediate points. Moreover, the tangents to these points must also vary continuously. As we can see, mechanics is by no means limited to a single mere calculation of continuous,

quantitative changes in the position of a moving body along a given curve. It also studies discontinuities and gradual changes. Nevertheless, it is evident that the primary task of mechanics lies precisely in the quantitatively precise study of all possible forms of motion.

This somewhat detailed explanation of the tasks of mechanics was necessary to explain how that view of nature as a whole arose and became established, according to which everything in it occurs continuously. This view owes its existence to the erroneous assumption that, according to the laws of mechanics, everything occurs continuously. Sciences, like all social phenomena, develop unevenly. When one science has already reached a significantly high level of development, another is still in its infancy. This is not the place to address the question of which social conditions or people's vital needs give rise to such unevenness. Incidentally, the greater or lesser complexity of the phenomena studied by a given science also plays a certain role here. There is no doubt that mechanics began to develop earlier and developed more rapidly than chemistry and biology, because the ruling class had a greater need for its development in the past. But apart from this, it is also undoubtedly true that geometrically conceived and formulated forms of motion and their laws present a far lesser difficulty for study than, for example, the immense complexity of biological processes.

At the same time, when studying the history of natural science, we come across a very interesting and important historical fact. In its early stages, a new science tends, for the most part spontaneously, to emulate the methods of a more established science, as if expecting that a method which has proved its worth in one field will yield good results in another as well. Therefore, with the exception of the last few decades, the assumption of the continuity of all natural processes was regarded as almost an axiom and was even extended to society, coming to be known in the fields of biology and sociology as evolutionism.

Thus arose the concept of mechanical materialism, the essence of which lies in the idea that in nature and even in society everything proceeds essentially mechanically. This implies that the fundamental premises of mechanics are of decisive importance in all other fields of science. Naturally, Marx and Engels waged a fierce struggle

against such a concept, which distorts the true picture of both nature and society. The mechanical concept, as is not difficult to understand, could not consistently maintain its line of argument. A consistent mechanical viewpoint required, for example, the reduction of all biological processes to the laws of mechanics. The mechanists, of course, failed to achieve this. The principles of biology differ qualitatively from the laws of mechanics (for example, Newton's principles). There remained only one way out: to retain the fundamental principle of mechanics concerning the continuity of forms of motion. But we have seen that, not only in the fields of chemistry, biology and the social sciences, but even in the field of mechanics itself, one cannot make do with the single principle of continuity.

In the field of social phenomena, there is a school of thought that attempts to explain social processes using the methods of biology; for example, to explain social categories and the laws of political economy by reducing them to the laws of biology. Thus, an attempt was made to explain society by applying the concept of the organism (the so-called organic school in sociology). But it is laughable to think that the categories of value and surplus value can be derived from biological laws. *'This whole attempt,'* Lenin rightly says, *'is worthless from start to finish, for the application of the concepts of "selection",*

The terms 'assimilation and dissimilation' of energy, energy balance and so on, when applied to the social sciences, are nothing but empty phrases. In reality, these concepts cannot be used to study social phenomena or to clarify the methodology of the social sciences. There is nothing easier , , than to slap on an 'energetic' or

'biological-sociological' label on phenomena such as crises, revolutions, class struggle and the like, but there is nothing more fruitless, more scholastic, more lifeless than this pursuit' (Vol. 10, p. 277).

These words of Lenin constitute a brilliant refutation not only of 'energetic' sociology, but of the mechanical method in general, since it is understood not as a method of mechanics, but as a universal method.

The error of the mechanical method lies not at all in the fact that it is unsuitable for mechanics. It would be ridiculous to suggest otherwise. Using its own method, mechanics has achieved brilliant results. Its error lies in the fact that the method

of mechanics, on its own, is incapable of explaining all phenomena of nature, and even less so, of course, the phenomena of society.

Every science must discover and develop its own method. No template will be of any help here, as equating the laws of one field with those of another yields nothing. The mechanical application of methods from mechanics to phenomena in other, more complex fields of science can only lead to confusion. It is necessary to study every phenomenon, every field of phenomena, in its own specific way. This applies equally to the study of nature and society.

'One cannot understand anything,' writes Lenin, 'unless one studies the specific circumstances of each battle. Having studied this, we shall clearly see that development does indeed proceed along a dialectical path, the path of contradictions: the minority becomes the majority, the majority becomes the minority' (Vol. 5, p. 479). 'The fundamental tenet of dialectics: there is no abstract truth; truth is always concrete' (ibid., p. 480).

Speaking of the right of nations to self-determination, Lenin analyses two phases of capitalism's development: 1) the collapse of feudalism and the formation of a bourgeois-democratic society; 2) the established capitalist society with a highly developed antagonism between the proletariat and the bourgeoisie.

'Of course,' says Lenin, 'neither of these epochs is separated from the other by a wall, but is linked by numerous transitional links' (Vol. 19, p. 95). Taking these transitional links into account is one of the most important features of materialist dialectics. Without it one cannot

guard against simplification, formalism and abstraction. Transitions are real, for there are no boundaries in the world such as those established by the human mind when analysing reality; all such boundaries are arbitrary. Therefore, a synthesis is necessary of that which had been demarcated by the mind.

'The fundamental tenet of Marxist dialectics,' writes Lenin, 'is that all boundaries in nature and society are conditional and fluid, and that there is no phenomenon which, under certain conditions, cannot be transformed into its opposite. National war

can turn into an imperialist one and vice versa. Example: the wars of the Great French Revolution began as national wars and remained so" (Vol. 13, p. 438). Napoleon turned these national wars into imperialist ones, subjugating a whole series of nation states.

These examples from Lenin illustrate the significance of the categories transition, mutual transformation and the interpenetration of opposing sides, which constitute different phases of a single historical process. Ignorance of this law turns dialectics into sophistry. Without transitions, individual epochs stand in opposition to one another without any connection, appearing 'pure'. *'However,' says Lenin, 'there are no "pure" phenomena in nature or in society, nor can there be—this is precisely what Marx's dialectic teaches us, showing that the very concept of purity is a form of narrowness, a one-sidedness of human cognition that fails to grasp the subject fully in all its complexity. There is no such thing as 'pure' capitalism in the world, nor can there ever be; there are always admixtures of feudalism, petty-bourgeoisie, or something else. Therefore, to claim that the war (the First Imperialist War. — A.V.) is not 'purely imperialist' is a deception of the masses by the imperialists, Kautsky and the whole Second International'* (Vol. 13, p. 160). Marx's dialectic forbids precisely such an approach: an isolated, one-sided examination of the subject. In the First Imperialist War, national elements were, of course, also intertwined. For example, Serbia's war against Austria.

But this *"national aspect of the Serbian-Austrian war has no serious significance in the pan-European war and cannot have any,"* says Lenin in the pamphlet *"The Collapse of the Second International"* (ibid.).

Marx's dialectic therefore requires great flexibility in its application. If, however, this flexibility becomes subjective, it turns into eclecticism and sophistry. And it becomes subjective when it ceases to reflect the processes of reality itself and turns into a play on concepts. True dialectics must avoid both extremes: 1) one-sidedness, anti-dialecticality, and disregard for transitions and mediations; 2) subjective flexibility, the groundlessness of arbitrary constructs that do not correspond to reality, and those abstracted from it without .

THE LAW OF THE NEGATION OF THE NEGATION

The law of the mutual interpenetration of opposites signifies the division and the fusion of opposites into

unity. Unity itself divides itself into these opposites, but does not separate them from one another. It is the principle that synthesises them. Opposites signify real contradictions. Their synthesis means that they pass into one another. The result of this transition is a third, new entity. The latter again constitutes an opposition in relation to its own moments, for it arises through the transition of two mutually negating moments into a new formation. The negation of one opposition through the other is the first negation. The negation of these oppositions, however, constitutes the second negation, or the negation of the negation. This is the third law of dialectics. Only the mutual interaction of all these three laws yields real dialectics.

Let us take a few illustrative examples. The form of human society was once the commune. The tribe collectively cultivated its land and engaged in livestock farming. Through a long historical process, the commune—that is, tribal society—decayed due to the division of labour and the increase in its productivity, and gave way to a social formation based on private property. Members of society worked on their own farms, and private property meant that each person was the owner of those means of production and consumption which they created, on which they lived, or which they directly used in their work. But the constant accumulation of the means of production in the hands of a few individuals created the material conditions for the large-scale destruction of small private owners. This process began to develop rapidly from the second half of the 18th century. A class emerged that did not possess its own means of production and was therefore forced to sell its labour power to the owners. From the beginning of the 19th century, European society split into two major classes: the bourgeoisie and the proletariat (the wealthy peasantry was also part of the bourgeoisie). As the means of production became concentrated in the hands of individual owners, ever larger enterprises gradually emerged, gathering vast numbers of workers in one place and producing on the basis of an ever-increasing division of labour. Production became social, between and as

distribution of goods remained individualistic. The class which directly produces material wealth, and does so with a high degree of division of labour and advanced technology, finds itself deprived of the overwhelming majority of the fruits of its labour. At a certain stage of development, the concentration of capital intensifies, whilst at the same time, at the other pole of social existence, the mass of poverty increases. The number of exploited and oppressed workers continues to grow, whilst the number of privileged elements of society is shrinking. The social base of capitalist monopoly is steadily narrowing. The contradiction between the two classes is deepening; the number of capitalist magnates is dwindling, whilst the scale of exploitation is growing ever greater. *'As the number of capitalist magnates, who usurp and monopolising all the benefits of this process of transformation, the extent of poverty, oppression, enslavement, humiliation and exploitation increases; but at the same time, indignation grows, and the ranks of the working class—trained, united and organised by the very process of capitalist production—are constantly swelling. Capital fettered the process of production that had grown up with it and under it. The concentration of the means of production and the socialisation of labour reached a point where they no longer fit within their capitalist shell. It burst. The hour of capitalist property had struck. The expropriators were expropriated'* (Marx. Capital. Vol. 1).

Marx's analysis is a classic example of the laws of dialectics, including the law of the negation of the negation. The first form of private property—small-scale commodity production—was based on personal labour. Capitalist private property is based on the appropriation of another's labour. This became possible because the direct producer is deprived of the means of production. Capitalism arose and developed inevitably on the basis of small-scale production, which, however, was preparing its own destruction precisely because of the conditions of its existence: the anarchy of production and competition. Competition is a struggle in which many are defeated and only a few emerge victorious. Ruined small proprietors are demoted, become proletarianised,

become workers or simply paupers (the long-term unemployed, where work is the exception and unemployment the rule).

The decline of small commodity producers, on the one hand, and the accumulation and concentration of vast capital in the hands of a few individuals, on the other, are inevitable. The demise of capitalism itself is therefore inevitable, for the contradiction between the highly co-operated form of the labour process, on the one hand, and the appropriation of the lion's share of its results by a paltry handful of exploiters, on the other, is tearing the capitalist system. Capitalist property thus constitutes the first negation of individual, labour-based private property. The inevitable demise of capitalism as a result of the aforementioned and all the glaring contradictions arising therefrom, and the establishment of socialism, constitute the negation of capitalism, i.e. the negation of the negation.

This is how Marx understands this law of dialectics. Eugen Dühring, whom the present generation knows thanks to the critique Engels wrote about him, accused Marx of an a priori (preconceived, not empirically acquired) construct. But, as Engels brilliantly proved, this construct existed only in Dühring's own mind. Marx provides a completely accurate scientific analysis of the historical development of capitalism based on indisputable facts. Only after this analysis does he point out that the process proceeds according to the law of the negation of the negation. Marx does not use the law of the negation of the negation to prove his own theory of the process of capitalist development; on the contrary, through this process—which is entirely objective, scientifically confirmed and corroborated by millions of new facts—Marx proves the correctness of the law of dialectics. The latter is not imposed on the historical process, but is revealed within it.

The law of the negation of the negation has universal significance, just like the other laws of dialectics. It encompasses phenomena of nature and society, as well as the field of mathematics. Even such a simple law as the multiplication of two negative quantities confirms our law: ' $-2 \times -2 = +4$ '. A double negation in mathematics signifies an affirmation.

It must be emphasised that negation in dialectics does not simply mean placing a *'not'* before a negated concept. That would be formal negation. Negation in dialectics means negation that constitutes the result of the transition of one phenomenon into another. Negation must be constructed in such a way that it can serve as a foundation, a starting point for a second negation. Capitalist property does not at all mean a mere negation of small-scale, labour-based private property, but its specific negation, i.e. a dialectical one. It consists in the fact that the negation is reciprocal, that both poles of the negation actually exist (and interact), and not just one half of it, as would necessarily be the case from the point of view of formal logic.

Capitalist private property is not a simple negation of small-scale property in general, but a negation of it which takes its starting point from the latter, develops out of it, and at a certain stage of development undermines the foundations of this older form of property. Similarly, communism represents a negation of capitalism, a negation of the negation, but one which arises from within capitalism itself. The proletariat, which is still developing within the bosom of the capitalist system, is the bringer of the new social order and the gravedigger of capitalism. Thus, dialectical negation must always be such that a second negation is possible. For if the object is negated in such a way that it is destroyed, then, of course, there will be no room for a second negation, for the transition to the opposite. When speaking of destruction, this must not be understood as absolute destruction, for such a thing does not exist. However an object may change, its real negation will be objectively dialectical, because there is no such thing as absolute destruction in nature. One may, for example, crush a butterfly pupa, and then a butterfly will not emerge from it. But this does not confirm the significance of formal negation, because although the pupa is 'destroyed', matter and energy are not destroyed; they merely take on a different form, that is, they—again, dialectically—transition into a new form of existence. After all, the death of an organism is also a dialectical process.

There is one further issue to which Lenin drew particular attention. When studying dialectics, it is easy to fall into a very dangerous fallacy, namely that the laws of dialectics can be forcibly imposed on phenomena, rather than being derived from them through conscientious scientific analysis. Such an error represents the opposite extreme to the first, which consists in regarding concepts as something dead and immutable. Dialectics must avoid both these false extremes. Concepts are dialectical only if they are not dead but flexible. On the other hand, care must be taken to ensure that dialectics does not degenerate into empty sophistry, a juggling of dialectical categories, or the imposition of these categories on the phenomena of nature and society. Categories are dialectical only if they reflect reality, i.e. reflect the movement of reality. This can be achieved only with the help of categories that are sufficiently flexible to reflect the all-round changeability of external reality. Here on that draws Lenin our attention.

'The all-encompassing, universal flexibility of concepts,' he says, — flexibility, reaching to the identity of opposites, — here in than is the essence. This flexibility, when applied subjectively, amounts to eclecticism and sophistry. Flexibility, when applied objectively, i.e. reflecting the comprehensiveness of the material process and its unity, is dialectics, is the correct reflection of the eternal development of the world' (Notes on Hegel's 'Science of Logic'. Our italics. — A.V.).

Elsewhere he elaborates further on this characterisation of dialectics. *'Dialectics is a living, multifaceted (with an ever-increasing number of facets) cognition, with an abyss of nuances in every approach, an approximation to reality... growing into a whole from every nuance — this is an immeasurably rich content, compared with 'metaphysical' materialism, the main trouble with which is the inability to apply dialectics... to the process and development of cognition'* ("On the Question of Dialectics").

Regarding the debate on trade unions, Lenin describes dialectics as follows: *'Dialectical logic demands that we go beyond (formal logic. — A.V.). To truly understand a subject, one must grasp and examine all its aspects, all its connections and "mediations". We will never*

achieve this fully, but the demand for comprehensiveness will guard us against the error of stagnation. That is the first point. Secondly, dialectical logic requires that we consider the subject in its development, its self-movement (as Hegel sometimes puts it), its change."

What is a trade union? A school, an apparatus, a workers' organisation, an organisation of industrial workers only, or an organisation by industry, and so on? Lenin answers as follows: *'Trade unions are a school of administrative and technical management of production. Not 'on the one hand a school, on the other something else', but from every angle—in this particular dispute, in the way Trotsky has framed the question—trade unions are a school, a school of unity, a school of solidarity, a school of defending one's interests, a school of stewardship, a school of management'* (Vol. 18, Part 1. pp. 55, 57). The dialectical link must be restored between these various tasks of the trade unions; that is to say, it is not enough merely to list them (the trade union is, on the one hand, a school, on the other, an apparatus, and so on), but one must see them in unity. This unity, which recreates what in reality is one, and constitutes a dialectical reflection of things that actually exist (ibid.).

THE LAWS OF DIALECTICS AS APPLIED BY LENIN TO THE PROBLEMS OF THE RUSSIAN REVOLUTION

The immense significance of the dialectical nature of the development of all processes in nature and society can also be characterised by one of the most important consequences arising from the theory of dialectics. This is the relationship between phenomenon and essence. What is a phenomenon, and what is an essence? A phenomenon is anything that is accessible to us through observation. When we observe, we perceive reality as it directly presents itself to us. However, it is necessary to make a strict distinction between the world of external appearance, as Marx puts it, and the essence of things. To master science, it is necessary to understand, first of all, that which is accessible to direct observation, measurement and calculation. But it is also necessary to uncover the internal causes hidden beneath the external shell. *'If the form of manifestation and the essence of things coincided directly,*

— says Marx, — *then all science would be superfluous.*” Lenin explains this idea using the example of exchange value. It is the law of prices, just as, conversely, — Lenin states — price is the manifestation of the law of value. This means that price is the factual given that is directly observed during the exchange of commodities. We cannot deduce from the direct observation of countless price fluctuations in the market which law it is subject to. The discovery of the laws of prices requires careful theoretical investigation, and this is given by Marx in the first volume ‘Capital’. The law of value, like all economic categories, is an abstraction of actual relations and is valid only insofar as these relations exist. Value relates to price as a law relates to its manifestations. Prices constitute innumerable, individual actual instances, constantly fluctuating up and down from value. Value, on the other hand, provides the law to which fluctuating prices are subject and from which, under normal conditions of competition, they cannot deviate significantly or for long. *‘If price,’* said Lenin, *‘is an exchange relation, then it is essential to understand the difference between a single exchange relation and a constant one, between a random one and a mass one, between a momentary one and one spanning long periods of time. Since this is so—and it is undoubtedly so—we just as inevitably move from the accidental and singular to the stable and mass, from price to value. Mr Struve’s attempt to declare value ‘ought-to-be’, to bring it into line with ethics or the teachings of the canonists, and so on, collapses like a house of cards’* (Vol. 12, Part 2, p. 391). (Struve managed to ‘prove’ that Marx’s theory of exchange value bears an analogy to the scholastics’ doctrine of original sin. Lenin brilliantly refutes this nonsense. — A.V.)

Lenin, in his pamphlet ‘The Economic Content of Narodism and Its Critique in Mr Struve’s Book’, provides a brilliant characterisation of the dialectical method as opposed to the so-called objective method. The latter is, in essence, sheer empiricism, denying any objective regularity. The ‘objectivist’, it is true, speaks of the necessity of historical processes. But he sees only the necessity of a given situation, whilst he does not see which exactly class

determines this necessity. The objectivist Struve's reference to 'irresistible historical tendencies' is a wholly abstract formula, for it does not explain the driving forces behind these tendencies. The dialectical materialist is not content with merely stating what exists. He points to the socio-economic conditions that give substance to this necessary process. He points to the existence of certain classes that determine this necessity. The objectivist sees only facts as something ready-made, but does not see the conditions of their emergence and their demise. Therefore, as Lenin rightly observed, the objectivist always risks slipping into the position of an apologist for these facts. (An apologist is one who considers, or wishes to consider, the existence of a given order to be eternal or the best. He does not wish to deal with the contradictions and tendencies that lead this order of things to its end, but endeavours, consciously or unconsciously, to divert his own and others' attention from these tendencies.) Under the guise of objectivity, the objectivist becomes an apologist for the existing order, and in essence, his 'objectivism' conceals an unacknowledged partisanship. Dialectical materialism incorporates partisanship and obliges one to openly adopt the standpoint of a particular class.

Towards the end of his life (1923), Lenin, commenting on the notes of N. Sukhanov, who had written his memoirs of the Russian Revolution, once again provides a brilliant characterisation and example of Marx's dialectics as a counterweight to eclecticism.

'They all,' writes Lenin, 'call themselves Marxists

(I am referring to the petty-bourgeois democrats and heroes of the Second International. A.V.), but they interpret Marxism with an impossibly pedantic rigidity. They have completely failed to grasp what is decisive in Marxism: namely, its revolutionary dialectics. Even Marx's direct instructions that maximum flexibility is required at moments of revolution are utterly incomprehensible to them and have not even been noticed; for example, Marx's instructions in his correspondence, dating, I recall, to 1856, when he expressed the hope that the peasant uprising in Germany, which could create a revolutionary situation, might be linked with the labour movement — even this direct indication they sidestep and skirt around, like a cat around hot porridge.' (Sukhanov, like the leaders of the Second International, criticises the Russian revolution, proceeding from

the general view of the Social Democrats that a proletarian revolution can arise only in the most technically advanced capitalist countries and therefore cannot succeed in Russia. — A.V.)

'...They have hitherto seen a definite path of development for capitalism and bourgeois democracy in Western Europe. And so they cannot imagine that this path could be regarded as a model except with certain modifications (entirely insignificant from the standpoint of world history).'

'The first is the revolution linked to the First World Imperialist War. Such a revolution was bound to exhibit new features, or modified ones, depending precisely on the war, because the world had never before witnessed such a war, in such circumstances... Secondly, they are completely alien to any notion that, within the general laws of development throughout world history, distinct phases of development—representing the peculiarity of either the form or the order of this development—are by no means excluded but, on the contrary, are to be expected. It does not even occur to them, for example, that Russia, standing on the border between civilised countries and the countries of the entire East and non-European countries—which this war is finally drawing into civilisation for the first time—that Russia could and should therefore 'For example, their approach is endlessly formulaic:

'For example, their argument is endlessly formulaic the argument they learnt by heart during the development of Western European social democracy, which consists in the claim that we have not yet matured for socialism, that we lack, as various 'scholarly' gentlemen among them put it, the objective economic prerequisites for socialism. And it does not occur to anyone to ask themselves: 'Could not the people, faced with a revolutionary situation such as that which arose during the First World War, could they not, under the influence of the hopelessness of their position, have thrown themselves into a struggle which offered them at least some chance of securing for themselves conditions for the further growth of civilisation that were not entirely ordinary?'

'Russia has not reached that level of development of the productive forces at which socialism is possible.' All the leading figures of the Second International, including, of course, Sukhanov, cling to this proposition as if it were gospel truth. They go over this indisputable fact in a thousand different ways, but it seems to me that it is not decisive for the assessment of our revolution. Lenin goes on to point to the unique situation brought about by the World War and the emerging revolutions in the East as special conditions for the success of the Russian Revolution, and asks:

'And what if... we were able to realise precisely that alliance 'peasant war' with the labour movement, which a 'Marxist' such as Marx wrote about in 1856 in relation to Prussia as one of the possible prospects? What if the utter hopelessness of the situation, thereby multiplying the strength of the workers and peasants tenfold, opened up for us the possibility of a different transition to the creation of the fundamental premises of civilisation than in all other Western European states? Did this alter the general course of world history? Did this also alter the fundamental relations between the main classes in every state that is drawn into and has been drawn into the general course of world history? If a certain level of culture is required to build socialism (though no one can say what this specific 'level of culture' is), then why can we not begin by first securing, through revolutionary means, the prerequisites for this specific level, and then already on the basis of workers' and peasants' power and the Soviet system, set out to catch up with other nations'...

'In what books have you read, that such variations of the usual historical period are unacceptable or impossible... 'First you must engage in a serious battle, and then we shall see' (a saying by Napoleon).

— A.V.). So we got involved in serious fighting for the first time in October 1917, and there we witnessed such developments (from the perspective of world history, these are undoubtedly minor details) as the Treaty of Brest-Litovsk, or the New Economic Policy, and so on. And now, there is no longer any doubt that, on the whole, we were victorious. Our Sukhanovs, not speaking already of to the right of the Social Democrats standing , cannot even imagine that revolutions cannot be made in any other way. Our European philistines cannot even imagine, that further revolutions in immeasurably more

the countries of the East, with their far greater populations and immeasurably greater diversity of social conditions, will undoubtedly present them with more peculiarities than the Russian Revolution. There is no doubt that the textbook written by Kautsky was a very useful work for its time. But it is high time to abandon the notion that this textbook somehow foresaw all the forms of development of subsequent world history. Those who think so ought to be declared, in good time, simply fools' (Lenin. 'On Our Revolution'. Vol. 18. Part 2. pp. 109–112)

I have quoted these passages from Lenin's notes on Sukhanov's book because these notes, among the last he wrote, demonstrate the genius and unrivalled perfection with which Lenin applied revolutionary dialectics. It is no wonder that Lenin always insisted that Marx's theory is not a dogma, but a guide to action. The Social Democrats, even the so-called 'leftists', have not gone beyond Kautsky's textbook **The Social Revolution**, and harbour the illusion that it is possible to write any textbook that would take into account the infinite variety of all the specific features of the proletarian revolution, regardless of the country or the particular historical conditions in which it might take place. *'The transfer of political power to the proletariat,'* says Lenin, *'that is the crux of the matter, and then everything that is essential, fundamental and radical in the programme of the 242 Demands becomes achievable. And life will show with what modifications this will be realised. That is the ninth point. We are not doctrinaires.* (A doctrinaire is one who, unable to apply theory to practice, clings only to the words of the theory. — A.V.) *Our teaching is not a dogma, but a guide to action. We do not claim that Marx and the Marxists know the path to socialism in all its concreteness* (our italics. — A.V.). *That is nonsense. We know the direction of this path; we know which class forces are leading along it; but in concrete, practical terms, this will be revealed only by the experience of millions when they set to work'* (Vol. 14, Part 2, pp. 83–84).

These remarkable words of Lenin, together with another characterisation of dialectics: *'all boundaries, both in nature and in society, are fluid and to a certain extent conditional'*, most vividly illustrate Lenin's profound understanding of the essence of dialectics. For the bourgeois democrats and their allies,

Social Democrats, the bourgeois-democratic and proletarian revolutions are separated by a Chinese wall. It is precisely in the name of such a 'precise and scientific' distinction between the two types of revolution that Sukhanov proclaims the impossibility of transitioning from a bourgeois revolution to a proletarian one. Lenin, on the contrary, being fully aware of the vast difference between the two types of revolution, sees not only their opposition but also the conditions under which one can develop into the other.

As early as in 'Two Tactics', he characterises this transition in the following way, providing one of the most brilliant examples of the application of revolutionary dialectics:

'The proletariat must carry the democratic revolution through to the end, drawing the mass of the peasantry to its side, in order to crush the resistance of the autocracy by force and paralyse the vacillation of the bourgeoisie. The proletariat must carry out the socialist revolution, drawing the mass of semi-proletarian elements of the population to its side, in order to break the resistance of the bourgeoisie by force and paralyse the vacillation of the peasantry and the petty bourgeoisie' (Vol. 6, p. 371).

The Social Democrats have never understood, and do not understand, and

It is now clear that the mere 'scientific' distinction between bourgeois and proletarian revolutions is no longer valid in the era of imperialist capitalism, in the era of world imperialist wars. The dialectics of the historical process have moved far beyond that. But all this passed them by, because it happened independently of, and even against, their wishes. They, as Lenin rightly points out, do not understand that the bourgeois-democratic revolution (1905) in Russia could not fail to exert an enormous influence on the revolutionary movement of the Western European proletariat. And since the Russian bourgeois revolution, in turn, turned out not to be a short-lived revolutionary upsurge but a protracted process lasting many years, the rise of the revolutionary movement of the European proletariat will have a reciprocal effect on Russia. This interaction will give rise to an era of world proletarian revolution, which will last not a few years but several decades.

As early as April 1917, Lenin had been waging the most vigorous campaign to convince the proletariat that, under the

present conditions

of the World War, with the unprecedented exhaustion of the working people caused by it, was impossible. All circumstances demanded a march forward towards socialism, for otherwise it would be impossible to alleviate the suffering of the exploited masses. And it turned out exactly as he had said. The course of the revolution confirmed his foresight. The proletariat embarked on a bourgeois-democratic revolution, joining forces with almost the entire peasantry against the monarchy, the landlords and all medievalism. But under certain conditions of the imperialist era, the bourgeois revolution develops into a social revolution. The proletariat joined forces with the poorest peasants and the semi-proletariat against capitalism, including the kulaks. This is no longer a bourgeois revolution, but a social revolution. It is no longer a revolution for the replacement of one form of private property by another, but for the abolition of private property altogether.

Here an example of the split and the union of opposites in the question of the two kinds of revolution, which the Social-Democratic leaders, bribed by those crumbs from the profits of imperialist exploitation of the colonial proletariat, which they receive from their 'domestic' capitalists.

Anyone who fails to grasp the decisive role of this development in the era of imperialism understands nothing of the history of recent decades. Only the revolutionary Marxism restored by Lenin, and his effective dialectic, can and has given us the key to understanding our era. From this, one can also understand the merciless struggle that Lenin waged against Kautsky ('The Proletarian Revolution and the Renegade Kautsky'. Vol. 15. pp. 443–531). Kautsky sought to turn Marx into 'a run-of-the-mill liberal, and revolutionary dialectics into sophistry'.

Lenin speaks of 'outgrowing' on all significant occasions of the dialectical transition of historical processes. The category of transition, of outgrowing, is the heart of dialectics. At the outbreak of the World War, he proclaimed the slogan of the imperialist war outgrowing into a civil war and (conversely) of social-democratic opportunism into social-chauvinism, into defence 'imperialist fatherland'. Lenin wrote a brilliant book, *, *, on *, * the transformation * * of the former * * form * * of capitalism,

based on free competition, into monopoly capitalism ('Imperialism, the Highest Stage of Capitalism', Vol. 13). Finally, he put forward the slogan of the transition of the bourgeois-democratic revolution into a socialist one, and of bourgeois democracy into proletarian democracy. The ultimate task of our era—the transition of socialism into communism—is to be achieved through the construction of socialism.

If Lenin had contributed nothing else but this brilliant application of revolutionary, Marxist dialectics in the era of monopolistic, moribund capitalism, that alone would have been quite sufficient to rightly regard him as the greatest master of dialectics. He knew, like no other, how to use this magnificent tool for understanding historical events (and also natural phenomena) in the struggle for change of the existing, inhuman

'order' of things, for its replacement with a new, higher, more cultured, more humane social system: socialism. He knew how to turn theoretical dialectics into practical ones. Marxism-Leninism is a theory of class struggle and proletarian revolution. It is inextricably linked to class struggle. It is the fruit and ideal reflection of this struggle.

But Lenin, living in the era of imperialism, was able not only to apply Marx's dialectics to the specific features of the era of imperialism, providing a profound analysis of this latest phase of capitalism, but also succeeded in developing and supplementing Marx's theory¹⁰. Here are the key points of this doctrine: the significance of the revolutionary, proletarian party in a revolutionary era; the doctrine of the driving forces of the proletarian revolution; the theory of the proletariat's allies, first in the struggle to establish bourgeois democracy (the entire peasantry against the tsar and the landowners, the paralysing of the bourgeoisie's counter-revolutionary vacillations during the bourgeois revolution), and then in the struggle to establish the dictatorship of the proletariat; the driving forces: the industrial proletariat, the rural poor; farm labourers, as the mainstay of the proletariat's power; the middle peasantry, as its ally; furthermore, the peasant and national questions and, finally, the most meticulous elaboration of the proletariat's strategy and tactics in the era of the dictatorship — these are but the most important achievements of Marxism, for which we are indebted to Lenin.

(¹⁰) Author's syntax. Ed.

In addition to all this, the proletariat owes him the development of Marxist dialectics in yet another question of the utmost importance, both theoretically and practically. This is the political party's attitude towards its own mistakes, or the question of self-criticism within proletarian parties. Marx himself emphasised this important characteristic of the proletarian party. *'Previous revolutions,'* writes Marx in *'The Eighteenth Brumaire'*, *'needed historical reminiscences, for it was necessary to obscure their true meaning. The revolution of the nineteenth century leaves the dead to bury their dead and marches straight towards the realisation of its aims... The successes of the bourgeois revolutions*

of the 17th century are striking. Their history is full of dramatic moments. People and events are full of splendour and vigour; inspiration is the everyday state of mind for everyone. But such intense moments cannot last long. They quickly reach a climax, after which society feels as if in a hangover, until it has soberly and dispassionately assessed the results of the upheaval that has taken place. On the contrary, the proletarian revolutions of the nineteenth century are constantly self-critical; they constantly halt their forward momentum, sometimes retreating a considerable distance to start afresh, mercilessly and thoroughly mocking the half-heartedness, weakness and wretchedness of their initial attempts, where it seemed they had overthrown their opponent only for him, having touched the ground, to gather new strength and appear before them in renewed might; they retreat, frightened by the immensity of their own tasks, until they have created around themselves a situation that cuts off any retreat.' (Our italics. — A.V.)

Lenin took up this idea and developed it, using it as the basis for an immeasurably important guide for the proletariat in correcting its mistakes. *'A political party's attitude,'* he says, *'towards its mistakes is one of the most important and reliable criteria for judging the seriousness of the party and whether it is actually fulfilling its duties towards its class and the working masses. To openly admit a mistake, to uncover its causes, to analyse the situation that gave rise to it, to discuss carefully the means of correcting the mistake—this is the mark of a serious party, this is the fulfilment of its duties, this is the education and training of the class, and subsequently*

the masses...’ ‘We must speak openly to them (the masses. — A.V.) that a mere (revolutionary. — A.V.) spirit is not enough to lead the masses in the great revolutionary struggle, and that such and such mistakes, which even the most devoted to the cause of the revolution are ready to make or do make, are mistakes capable of harming the cause of the revolution.... The argument (of Lloyd George, who was Prime Minister at the time Lenin was writing his pamphlet: ‘Infantile Disorder’

‘leftism’ in communism’ — A.V.) demonstrates particularly how the most intelligent members of the bourgeoisie have become confused and cannot help but commit irreparable follies. This is what will bring about the downfall of the bourgeoisie. ‘But our people may even make mistakes (provided, of course, that these mistakes are not too serious and that they are corrected in good time) and yet still emerge victorious in the end’ (Vol. 17, pp. 147, 167, 170). But Lenin pays no less attention to the errors committed by ‘such highly learned Marxists... of the Second International as Kautsky, Otto Bauer and others. They were fully aware of the necessity... of flexible tactics; they studied and taught others Marxist dialectics... but in applying this dialectic they made such a mistake, or proved in practice to be such non-dialecticians, proved to be people who had previously failed to take into account the rapid change of form and the rapid filling of old forms with new content, that their fate is scarcely more enviable than that of Geindman, Ged and Plekhanov. The main reason for the bankruptcy lay in the fact that they had ‘fixed their gaze’ on one particular form of growth of the labour movement and socialism, forgot about its one-sidedness, were afraid to see the sharp break that had become inevitable due to objective conditions, and continued to repeat simple, rote, at first glance indisputable truths: three is more than two. But politics is more like algebra than arithmetic, and even more like higher mathematics than lower. In reality, all the old forms of the socialist movement have been filled with new content; a new sign has therefore appeared before the figures:

‘minus’, whilst our wise men stubbornly continued (and continue) to assure themselves and others that ‘minus three’ is greater than ‘minus two’.

‘We must strive to ensure that the same mistake is not repeated with the Communists, only from the other side, or rather, that the same mistake is corrected as soon as possible and eradicated more swiftly and painlessly for the organism, only

from the other side, committed by 'left-wing' communists. Left-wing dogmatism is also a mistake, not just right-wing dogmatism... Left-wing communism is a very young current, only just emerging. Precisely for this reason, the disease can be easily cured under certain conditions, and we must set about curing it with the utmost energy."

...'Communists must make every effort to guide the labour movement and social development in general along the most direct and quickest path to the worldwide victory of Soviet power and the dictatorship of the proletariat. This is an indisputable truth. But if one takes a small step further

— a step, it would seem, in the same direction — and the truth turns into a mistake. It is enough to say, as the German and English left-wing communists do, that we recognise only one, only the direct path, that we do not tolerate vacillation, accommodation, or compromise, and this will already be a mistake capable of causing—and in part has already caused and is causing—the gravest harm to communism. Right-wing dogmatism has clung to the recognition of old forms alone and has failed completely, failing to notice the new content. Left-wing dogmatism insists on the unconditional rejection of certain old forms, failing to see that the new content is forging its way through all and every form, that it is our duty, as communists, to master all forms, to learn as quickly as possible to supplement one form with another, to replace one with another, and to adapt our tactics to every such change, whether brought about by our class or not, or by our efforts or not" (ibid., pp. 187–189).

We cannot quote here everything Lenin said on the necessity of self-criticism within the proletarian party during the revolutionary era. Yet what has already been said is sufficient to grasp the immense significance of that aspect of the application of dialectics which may rightly be termed the 'dialectics of errors', meaning, as Lenin put it, the political party's attitude towards its own mistakes. Particularly interesting and important is Lenin's observation that even the most intelligent members of the bourgeoisie cannot help but commit irreparable blunders. It is this that will lead to the downfall of the bourgeoisie. Proletarian leaders, on the other hand, may commit blunders, provided these blunders are not too grave and are corrected in good time. Under these conditions they will prove in the end to be the victors.

The reason for this remarkable phenomenon lies in two circumstances. Firstly, in the fact that the proletariat possesses the only scientific theory of revolutionary action, Marxism; secondly, by virtue of the objective state of affairs, capitalism is dying. No human wisdom can avert its fate. The skilful, shrewd policies of certain bourgeois politicians and parties can, at best, only postpone the demise of capitalism for a time, but not prevent it. Bourgeois politicians, such as Lloyd George, clearly understand that the collapse of capitalism, especially in England, where the majority of the population consists of industrial proletarians, is looming. Lloyd George has even learnt a little about Marxism. However, no one will succeed in preventing the inevitable death of a system that has outlived its usefulness. That is why Lenin is right in saying that the mistakes made and still being made by some leaders of the proletarian party, provided they are able to correct them in good time, can only postpone the final victory of the proletariat, but not destroy it.

IV.

PHILOSOPHY AND CLASS CONSCIOUSNESS OF THE PROLETARIAT IN THE AGE OF REVOLUTION

Marxism-Leninism differs from the 'Marxism' of the Social Democrats in that it is, more than any other theory, based on a practical principle. One of the most important truths of historical materialism is that people make their own history. Thanks to this, the role of a correct revolutionary theory becomes particularly clear. Marx's doctrine is all-powerful because it is true. It represents the revolutionary theory without which there can be no revolutionary movement. It is no coincidence that Lenin placed such emphasis on the question of orthodox Marxism. In the revolutionary movement of the proletariat, there were various tendencies, various 'shades'. To some, the dispute between the supporters of these shades might seem unimportant, but *'only short-sighted people,'* says Lenin, *'can regard factional disputes and the strict distinction between shades as untimely or superfluous. The future of Russian Social Democracy for many, many years may depend on the consolidation of one or the other 'shade''* (Vol. 5, p. 135).

Engels already points out in his book **The Peasants' War in Germany** two advantages of the German workers. The first is that they belong to the most theoretical people in Europe and that they alone have preserved within themselves that theoretical sense which has been almost lost by the bourgeoisie in Germany. Classical German philosophy, especially Hegel's philosophy, is of immense importance in the creation of scientific socialism. Without the theory of Marxism, the labour movement, in turn, could not have advanced so rapidly. Engels explains why the English labour movement is developing so slowly. He identifies one of the reasons as the absence of a scientific revolutionary theory.

The second advantage of the German workers lies in the fact that they began to participate in the labour movement later than the English and French workers. Therefore, they were already able to draw upon and did draw upon the hard-won experience of the English and French workers. Consequently, they had the opportunity to avoid those mistakes, which the French and

The English could not avoid this. A case in point is the Paris Commune and its experience. In order to truly benefit from such advantages, proletarian leaders, says Engels, must engage seriously with Marxist theory. They must understand that Marxism is a genuine science and that it should be treated as such—that is, studied. But this is not enough. The class consciousness thus acquired must be disseminated among the working masses, and a party and trade unions must be organised on the basis of Marxist theory.

It is therefore hardly surprising that Marxism is increasingly becoming the conscious heritage of the broad masses of the proletariat. The consciousness of the vanguard of the proletariat is drawing ever closer to that ideal of class consciousness which Marxism provides, and which flows from it. It would be entirely un-Marxist to suppose that such a mass ideological movement, unprecedented in human history, as the study of Marxism by broad sections of the proletariat, is due to some random mood on the part of the masses or the enthusiasm of individual propagandists, especially those at spreading Marx's teachings among the masses and presenting them to the masses. *'When the masses,' says Lenin, 'digest a new and unprecedentedly rich experience of the immediate revolutionary*

struggle, then the theoretical struggle for a revolutionary worldview, i.e. for revolutionary Marxism, becomes the order of the day' (Vol. 11, Part 1, pp. 173–174). In this, Lenin sees one of the most important tasks of party cells and so detested by the opportunists

'professional revolutionaries'. The experience of the first Russian revolution proves that even a period of stagnation, the temporary victory of the counter-revolution that followed the 1905 revolution, could not hinder the growth of theoretical interest among the working class. But this movement is incomparably broader and deeper during a direct revolutionary situation.

What is the strength of Marx's philosophy? It lies in the fact that, for Marx, philosophy and political economy are linked into a coherent materialist worldview. The distinctive feature of Marxism, in contrast to all other philosophical doctrines, is precisely that philosophy, economics and politics are not detached from one another. *'Politics is*

'the concentrated expression of the economy... Politics cannot but take precedence over the economy... Without the correct political approach to the matter, this class will not be able to maintain its dominance and, consequently, will not be able to resolve its productive tasks' (Lenin. Vol. 18. Part 1. pp. 46–47). Yet philosophy is also closely linked to the economy and politics (as it is to all sciences in general), for, from the Marxist perspective, philosophy is not a science standing above other sciences. What remains of earlier philosophy is formal logic and dialectics. Dialectics also considers thought historically, studying its development, the transition from ignorance to knowledge (Vol. 16, Part 2, p. 323). For earlier thinkers, philosophy was detached from life and also from other sciences, above all from political economy and politics. Marx was therefore quite right to point out that philosophers have hitherto merely interpreted the world in various ways; the point, however, is to change it. And this is impossible without the closest connection between philosophy and political economy and politics¹¹. Yet even this is not enough. Marxism grew out of the soil of the entire preceding human culture. It would be a profound mistake to think that Marxism represents itself some sort of 'closed, ossified doctrine, arising on the sidelines of the main road of world civilisation's development'. Marxism did not invent non-existent problems, but answered the most real questions posed by the historically advanced thought of humanity. It grew out of French socialism, English political economy and German philosophy; it is ***'the legitimate heir to the best that humanity created in the 19th century'*** (Lenin. Vol. 12. Part 2. p. 55). Only the alliance of the working class with Marxism, the incorporation of Marxism into the very flesh and blood of the advanced proletariat, will provide the world with ***'a way out of the spiritual slavery in which all the oppressed classes have hitherto languished'*** (Lenin. Vol. 12, Part 2, 'The Three Sources and Three Component Parts of Marxism').

Marxism rests on the unshakeable foundation of the positive sciences, which have emerged in the course of historical development and, above all, under capitalism. Marx was the first to demonstrate that the development of capitalism inevitably leads to communism. He demonstrated this on the basis of a precise, detailed study

¹¹ Here and elsewhere, A. Varyash is seriously mistaken, for **there is no philosophy in Marxism**, and philosophy itself was abolished in its time by L. Feuerbach, K. Marx and F. Engels. Ed.

of capitalist society. It can safely be said that Marx reworked everything that had been created in the field of economics by human thought before him. But he approached all sciences and all significant events in history critically, testing everything against the experience of the labour movement. Thanks to this, he was able to draw conclusions that thinkers, corrupted by bourgeois prejudices and bound by class interests, were unable to reach. All this explains the enormous influence his teachings exert on the minds of millions of working people. Lenin, outlining the tasks of the Komsomol (October 1920), strongly emphasises the need to assimilate all that is valuable that has been created by previous generations. Only from the soil of all previous culture can proletarian culture grow. It is the natural development of the knowledge that humanity has acquired under the yoke
slave-owning, serfdom
and capitalist societies.

But the question arises: why does the consciousness of the proletariat advance so slowly and so unevenly towards the attainment of the necessary class consciousness? Social existence determines people's consciousness. It is impossible to leap in a single bound out of the framework of material living conditions, out of the spiritual influence of the entire past, out of the spiritual influence of the strata of the whole people surrounding the proletariat. The proletariat is a class that grew out of the ruins of feudal society at the same time as the bourgeoisie. It coalesced from the apprentices of medieval guilds, from formerly free peasants driven from their land who migrated en masse to industrial centres, and from the strata of the petty bourgeoisie that were declassed on a massive scale (bankrupted
small artisans, the proletarianised petty-bourgeois intelligentsia). It is no surprise that only over the course of an entire historical epoch can the proletariat emerge as a unified, cohesive class, as a class not only in itself but also for itself (i.e. as a class possessing self-consciousness). The heterogeneity of the proletarian class, apart from this consequence of its historical past, is also due to another important factor arising from the development of modern capitalism. Modern capitalism is already significantly different from the capitalism of the past. Since the end of the last decade of the past century, capitalism has entered

the final phase of its development, the imperialist and monopolistic phase. The seizure by the imperialist powers of all colonies not yet touched by capitalist development provided the latter with the opportunity for a new period of temporary growth. The plundering of colonial peoples, their oppression and exploitation, and the cheap labour of colonial slaves, — all this made possible a somewhat more privileged position for the upper stratum of the working class in the metropolises (in the states possessing colonies). Thus a temporary situation was created, artificially exploited by the capitalists: the divergence of interests between the oppressed at home, in their own country, on the one hand, and the oppressed in the colonies, on the other. In addition this a a division between highly skilled, well-paid and unskilled workers in the metropolises themselves.

All these are obstacles to the unity of the working class, the growth of class consciousness, and the preference for class interests common to the whole class but more distant than the immediate, guild-like interests of its individual strata. Yet all these obstacles could not destroy the very foundation upon which the class consciousness of the proletariat grows daily. To the the development of the democratic-liberation movement in colonial and semi-colonial countries, the opportunities that allowed capitalists to tempt the upper strata of the proletariat with tiny concessions are becoming increasingly limited.

But even in Russia, where the proletariat is in power, it cannot be said that the vestiges of the old order have been eradicated. *'Classes,'* as Lenin teaches, *'have remained and will remain for years to come everywhere after the proletariat has seized power... To destroy classes means not only to drive out the landlords and capitalists—which we have done with relative ease—but also to destroy the small commodity producers; and they cannot be driven out, they cannot be suppressed; one must come to terms with them; they can only be dealt with through long, slow, careful, organisational work. They surround the proletariat on all sides with petty-bourgeois elements, imbue it with them, corrupt it with them, and constantly provoke within the proletariat relapses into petty-bourgeois spinelessness, fragmentation, individualism, and swings from enthusiasm to despondency. The strictest centralisation and discipline within*

the proletariat's political party to counter this, so that the proletariat's organisational role (which is its primary role) may be carried out correctly, successfully and victoriously. The dictatorship of the proletariat is a relentless struggle—bloody and bloodless, violent and peaceful, military and economic, educational and administrative—against the forces and traditions of the old society. The force of habit of millions and tens of millions is the most formidable force. (Our italics.

— A.V.) *Without a party, iron-willed and tempered in struggle, without a party that enjoys the trust of all honest members of this class, without a party capable of gauging the mood of the masses and influencing it, it is impossible to wage such a struggle successfully. It is a thousand times easier to defeat the large, centralised bourgeoisie than to 'defeat' millions upon millions of small proprietors; and through their everyday, mundane, invisible, elusive, and corrosive activities, they bring about precisely those results which the bourgeoisie needs, which restore the bourgeoisie. Anyone who in any way weakens the iron discipline of the proletarian party (especially during its dictatorship) is in fact aiding the bourgeoisie against the proletariat'* (Vol. 17, p. 136).

At during a nationwide economic and political crisis, of course, and the mood of the proletarian and non-proletarian working masses becomes revolutionary. Without this revolutionary mood, it is impossible to put revolutionary tactics into practice. *'But we in Russia,'* says Lenin, *'have been convinced by too long, too bitter, too bloody an experience of the truth that revolutionary tactics cannot be built on a revolutionary mood alone. Tactics must be based on a sober, strictly objective assessment of all the class forces in a given state (and in the states surrounding it and in all states on a global scale), as well as on an assessment of the experience of revolutionary movements'* (ibid., p. 152). Lenin goes on to point out that the backward masses of workers and small peasants in Western Europe are steeped in bourgeois-democratic and parliamentary prejudices. Therefore, communists can and must also wage a struggle to overcome these prejudices from within parliament and other institutions of bourgeois democracy. Indeed, the Bolshevik Party will never find itself at the tail end of the workers' movement, but is its vanguard, its leading detachment. The immense

historical significance of such a party is obvious to everyone. Only such a party can break the inertia of the masses, and is capable of correctly directing and leading the struggle of these masses. But to do this, it must have authority amongst the masses. It follows that Marxism cannot be a theory of timid wait-and-see attitude, as is practised by social democracy in the name of 'Marxism', but that it combines *'scientific sobriety in the analysis of the objective state of affairs and the objective course of evolution with the most resolute recognition the significance revolutionary energy, revolutionary creativity, and the revolutionary initiative of the masses, as well as, of course, of individual personalities, groups, organisations, and parties capable of discerning and realising a connection with one class or another'* (Vol. 8, pp. 450–451).

We can now summarise the conditions for the success of the proletarian revolution. *'The fundamental law of revolution, confirmed by all revolutions and in particular by the three Russian revolutions of the 20th century, is this: for a revolution, it is not enough for the exploited and oppressed masses to realise the impossibility of living as before and to demand change; for a revolution, it is necessary that the exploiters be unable to live and rule as before. Only when 'the lower classes' want the old ways, and only when 'the upper classes' can no longer carry on as before can the revolution triumph. This truth is expressed differently as follows: a revolution is impossible without a nationwide crisis (one that affects both the exploited and the exploiters). This means that for a revolution to succeed, it is necessary, firstly, to ensure that the majority of workers (or at least the majority of conscious, thinking, politically active workers) fully understand the necessity of the upheaval and are prepared to die for it; and secondly, that the ruling classes are experiencing a governmental crisis which draws even the most backward masses into politics (a sign of any genuine revolution: a rapid tenfold or even hundredfold increase in the number of representatives of the working and oppressed masses, hitherto apathetic, who are capable of political struggle), paralyses the government and makes it possible for the revolutionaries to overthrow it swiftly'* (Vol. 17, p. 172).

It follows from this that victory cannot be achieved with the vanguard alone. For this, the whole class, the broad masses,

to reach the conclusion that the revolution is absolutely necessary. But for the masses to reach such a conviction, propaganda and agitation alone are not enough. For this, the masses need their own political experience. When it comes to the onset of a revolutionary crisis, to the alignment of all class forces for a decisive battle, — propaganda about the general truths of communism alone is insufficient. When the vanguard of the proletariat is convinced of the inevitability of the revolutionary assault and when the entire mass of the conscious section of the proletariat has clearly realised that the time for action has come, there still remain conditions relating to the enemy against whom the battle is being waged, and to those intermediate elements of the petty bourgeoisie which the proletariat can utilise in the struggle. Only when the hostile classes have become sufficiently entangled and have fought amongst themselves, have sufficiently exhausted themselves through struggle, and when all the wavering, unstable elements of petty-bourgeois democracy have already sufficiently exposed themselves before the people, — only then has the revolution ripened. To take account of this vast array of historical forces and conditions, a communist must master dialectics, be able to manoeuvre between enemies, play one group off against another, and even enter into such compromises as are capable of accelerating the pace of the maturing revolutionary struggle. Communist tactics must be as flexible as possible. It is extremely difficult to overcome bourgeois habits within one's own ranks whilst the bourgeoisie is in power. But without this, the workers' party cannot lead the masses in the struggle and cannot win (Vol. 17, 'The Infantile Disorder of Left-Wing Extremism').

The philosophy of Marxism, as the most effective of all philosophies that have existed throughout history, provides the guidance, the compass, without which the workers' party cannot be the true vanguard of the proletariat. If we compare Marx's teachings with other philosophical schools from this perspective, we can generally distinguish three tendencies. There is a revolutionary philosophy, which is the theoretical expression of all the historical, economic, political, strategic and tactical conditions of the revolution. This is Marxism. There is a philosophy that serves as a weapon of the ruling class against the revolution. It is designed to indoctrinate the minds of the intermediate strata of the population, in the first instance 'educated people', in a manner convenient for the bourgeoisie.

Idealism in all its forms plays a subsidiary role here in relation to religion. The ruling class fills the minds of the backward masses with the opium of religion, for whom religion is a suitable form of deception. Philosophical idealism performs similar functions in a more ‘subtle’, more ‘scientific’ form among those sections of the population (the petty-bourgeois intelligentsia), who are ‘enlightened’, i.e. who would not succumb to obvious, crude deception.

But the history of philosophy also knows a third—an intermediate—tendency. It consists in philosophy becoming, in a certain sense, a surrogate for revolution. A typical representative of this tendency was Kant’s philosophy. Whilst the French bourgeoisie overthrew the old regime by force of arms, using the weapon of criticism against it, the German philistine was content merely to criticise his own feudal state, without attempting to destroy it. It is quite clear that such a philosophy could not be consistent. It consisted of ‘one side’ and of ‘the other side’, just as, according to Christian doctrine, a human being consists of body and soul. Such a philosophy arose in Germany, which at that time had fallen somewhat behind the rapid course of historical development. It is generally possible in a country where, although a class embodying progressive ideas for the transformation of society does exist, it is not strong enough to put these progressive ideas into practice by revolutionary means, i.e. radically and consistently, owing to the weakness of that country in both economic and political terms.

HISTORICAL MATERIALISM

Our philosophy differs from all contemplative and idealistic worldviews in that it proceeds from the existence of an objective reality—one that exists independently of our consciousness—and seeks to provide a concrete explanation of its development. The main error of all theories of society prior to the advent of Marxism lay in the fact that they began at the end, with the question of what society is in general. They developed abstract reflections on human nature in general, regarding it as the task of the social

to identify those conditions which best correspond to 'human nature'. Subjectivist sociologists saw in history only examples of what—from their subjectivist point of view—was desirable or undesirable. And what provides the yardstick for what is desirable or undesirable? Naturally, the 'critically thinking' philosopher, the 'morally developed' individual. The subjectivists themselves understood that such a 'criterion' could only introduce a 'subjective' order into the chaos of historical events, for what is desirable for one morally developed individual is not a criterion for another. It followed from this that the subjectivist was compelled to deny the lawfulness of society's development. And he found confirmation of this denial in what he posited as the 'fact' of the irreproducibility of historical events.

It is obvious that a scientific theory of society cannot be built on such grounds. Lenin sees in the following the advantage of Marxism over all previous social theories. Marx's theory differs from all forms of subjectivism based on an idealist worldview in that it examines a specific socio-economic formation, rather than society in general. Marx proceeded from the fundamental fact, from the mode of production. He distinguished between the economic structure of society and its political and ideological forms. In doing so, Marx eliminated the two main shortcomings of earlier historical theories. Firstly, these theories considered only the ideological motives behind individuals' actions, but did not investigate the roots of these ideas in a specific, historically given stage of development of material production. Secondly, they saw in history only the actions of individual, so-called great men, and paid little or no attention to the actions of the masses, of entire classes, to the study of their living conditions, or to the forms of production that constitute the source of their existence. Even less did they investigate the causes of the change in these forms. For subjectivists, the history of humanity consists of the history of 'dominant' ideas; moreover, interpreting them arbitrarily, they regard them as certain driving forces of history developing independently of everything else! Thus, all social development was reduced to a greater or lesser degree

of understanding or moral level, primarily that of so-called historical figures.

In sharp contrast to this, Marx considers primarily the actions not of individuals, but of social classes. He found an explanation for the emergence and development of capitalist society in the interrelationships between the different classes of that society. He discovered the law of its development in the class struggle. Only the categories: productive forces, relations of production and their real connection can provide the key to understanding history, to understanding the class struggle. Relations of production, taken as a whole, constitute a complex system, a system that changes in accordance with the development of the productive forces, on the basis of which these relations of production take shape, and on the basis of which classes arise and struggle.

What is a class?

Lenin responds as follows: *'Classes are large groups of people distinguished by their place in a historically determined system of social production, by their relationship (largely fixed and enshrined in law) to the means of production, by their role in the social organisation of labour, and consequently by the ways in which they acquire and the extent of that share of social wealth which they possess. Classes are also groups of people, one of which is able to appropriate the labour of the other owing to the difference in their position within a given structure of the social economy'*

(V

ol. 16, p. 249). *'The position of this class (wage labourers) differs fundamentally from that of the class of smallholders, the peasants. Therefore, there can be no question of uniting them in a single party'* (Vol. 12, Part 1, pp. 108–109).

However, one might ask: where is the guarantee that such an objective approach to history is correct? It is correct for the reason that it is not the result of an arbitrary, a priori construct, a definition of society and human nature in general, but rather the result of a thorough historical investigation of a specific social formation: capitalist society. Based on the system of commodity economy, Marx examines the laws governing the functioning of this formation and seeks the laws of its development in the context of the level of its productive forces. He analyses

the relations of production of society and its classes, which have grown out of a historically given level of productive forces, without ultimately resorting to factors outside these relations of production to explain them. He then examines how the commodity organisation of society develops, how it transforms into a capitalist one, and how, on this basis, the two main classes of this social system arise: the bourgeoisie and the proletariat. He goes on to consider the development of the productivity of social labour, which gives rise to an irreconcilable contradiction with the very foundations of the capitalist organisation.

Marx's starting point for analysing social relations is thus diametrically opposed to that of the idealist conception of history. The latter took as its starting point the level of rationality of human beings and sought to understand historical events in terms of these people's ability or inability to find that 'rational' order which corresponds to human nature. But because this reason was conceived by them as a sort of self-sufficient agent, changing under conditions unknown to them, the whole of history turned into a complete chaos of chance in their minds. If people were wiser, they might find a social order more suited to human nature. It is clear that with such a childish conception of the causes of social development, history cannot be turned into a science. The starting point was taken to be the political and legal relations of society, i.e. relations that are already highly complex¹²

, which 'ought' to be explained by one set of human ideas or another. The futility of such an attempt is evident from the mere fact that, according to this explanation, social relations are constructed by people consciously, on the basis of certain ideas that have already been laid down as the foundation of their activity. But this contradicts the entire course of historical development. Never before have members of society conceived of the totality of their social relations as something holistic and determined by laws. On the contrary, people relate to these relations to such an extent unconsciously that a clear understanding of such a fundamental relation of the commodity economy as the relation of exchange, at which they lived for many centuries, has become

(12) The author's vocabulary. Ed.

which became possible only from the beginning of the 19th century thanks to English political economy and, above all, to Marx. Since this is the case—and it undoubtedly is—there remains but one solution: the explanation that the development of ideas depends on the development of relations of production and, ultimately, on the development of the forces of production. The subjectivists' premise inevitably leads to the conclusion that historical events do not repeat themselves, that—in the subjectivists' view—no objective regularity can be found in them. But we know that the history of the emergence and development of a particular social formation in any one country does indeed repeat itself, within certain limits, at least in all essential respects, in other countries. Capitalism began to develop in Italy at the end of the Middle Ages. It was repeated in the Netherlands, in England, and so on. Of course, when speaking of repetition, this by no means implies an exact repetition in every detail. Essentially, the very same relations of production arose, along with the same legal and other ideological superstructures, however they might differ from one another in specific nuances. Therefore, it is impossible to speak of the non-repetition of historical events, since we are dealing with the emergence and development of entire social formations. People built their social system without a conscious plan. They exchanged goods and entered into relations of production without realising at all that their activity constituted a social, productive relationship. Consequently, the latter does not first pass through their consciousness but takes shape unconsciously. Only when these relations have already developed to a certain stage do individual thinkers emerge who grasp the laws of this process and bring them to the consciousness of others.

But Marx was not content with an analysis of the economic formation of modern society. He did not confine himself to a single theory of capitalist production. He succeeded in revealing the causal link between relations of production and the superstructure. He showed, writes Lenin, *'the entire capitalist social formation as a living entity — with its everyday aspects, with the actual social manifestation of the class antagonism inherent in the relations of production, with the bourgeois political superstructure safeguarding the dominance of the class*

capitalists, with bourgeois ideas of freedom, equality and the like, with bourgeois family relations... Marx put an end to the view of society as a mechanical aggregate of individuals, subject to all manner of changes at the whim of those in authority (or, in any case, at the whim of society and the government), arising and changing by chance, and for the first time placed sociology on a scientific footing, establishing the concept of the socio-economic formation as a set of given relations of production, and establishing that the development of such formations is a natural-historical process' (Vol. 1, p. 81. Our italics. — A.V.). Marx brought about as great a revolution in the social sciences as Darwin did in biology. This is how Lenin assessed Marx's teachings.

Lenin, of course, knew perfectly well that since ideology arises on a specific productive basis, it exerts a reciprocal influence on that basis and participates in its transformation. When Marxists say that a social formation arises independently of people's consciousness and even their will, this by no means implies that the historical process proceeds mechanically. People themselves have made and continue to make their own history. But they do so unconsciously, not according to a plan known or agreed upon in advance. Yet although they have hitherto made their history unconsciously, they have nevertheless had some conception of what they were doing. Only this conception was not a correct reflection of what they were doing; it was not a clear awareness of the connection that existed in the activities of individual social groups. That is why Engels, and after him all Marxists, call the system of such ideas ideology, reflecting reality in a distorting mirror.

It is no coincidence that Marx and Engels, who for the first time provided an accurate reflection of the functioning of the laws of capitalist society, provided a worldview for the proletariat, not the bourgeoisie. No social class that lives by exploiting other classes can grasp the full scope of its existence, the historical determinism of the rise and fall of the social order it has created. It is compelled to create a false ideology. For the latter itself serves as a weapon in the struggle to preserve its dominance, to secure the necessary conviction in the perfection of its social and

political system. It also serves as a tool for successfully influencing the minds of the classes it oppresses. Bourgeois ideology is necessary for the bourgeoisie to deceive—whether consciously or unconsciously, it makes no difference—the minds of the backward masses. *‘A bourgeois philosopher or bourgeois publicist,’ says Lenin, ‘will never understand social democracy correctly, neither Menshevik nor Bolshevik social democracy. But if he is a publicist of any intelligence, his class instinct will not deceive him, and he will always grasp the significance for the bourgeoisie of one or another current within Social Democracy correctly in essence, even if he misrepresents it. Our enemy’s class instinct and class judgement therefore always deserve the most serious attention from every conscious proletarian... Liberals, as ideologues of the bourgeoisie, understand perfectly well that the ‘practicality, sobriety, and seriousness’ of the working class—that is, the actual restriction of its sphere of activity to the confines of capitalism, reforms, trade union struggles, and so on—is advantageous to the bourgeoisie. The ‘revolutionary narrowness’ of the proletariat and its striving, in the name of its class tasks, to secure a leading role in the popular revolution is dangerous and terrifying to the bourgeoisie’* (Vol. 6, pp. 384–385).

The “narrowness” of the bourgeoisie’s understanding of the labour movement is dictated by its class interests. The bourgeoisie will always ‘understand’ only the opportunists, the ‘moderates’, that is, in essence, those representatives of the proletariat who strive not for a proletarian revolution, but for reforms that do not affect the very existence of capitalism.

What the bourgeoisie dislikes most in Marx’s doctrine is the meaning he attaches to the concept of class struggle. It is a very common belief that the doctrine of class struggle was created by Marx. But this is incorrect. This doctrine existed even before Marx. It was developed by the ideologues of the French bourgeoisie during its struggle for political supremacy (Thiers, Guizot, etc.). The idea of class struggle, generally speaking, is acceptable to the bourgeoisie. And its representatives, such as the Russian ‘economists’, recognised class struggle as a means of improving the economic situation of the working class, but did not recognise it as a struggle for the seizure of power by the proletariat. Therefore, anyone who recognises only class struggle, — writes Lenin in ‘The State and Revolution’,

— such a person is not yet a Marxist; they may still be confined within the bounds of bourgeois thinking and bourgeois politics. All class struggle is political struggle. Opportunists have tried in every way to distort these profound words of Marx. Marx himself emphasises that the new meaning he has given to the concept of class struggle lies in the fact that, at a certain stage of social development, it will inevitably lead to the dictatorship of the proletariat. *‘As for myself,’ says Marx, ‘I have no claim to the discovery of classes in modern society, nor to the discovery of their struggle against one another. Bourgeois historians long before me have set out the historical development of this struggle, and bourgeois economists the economic anatomy of the classes. What I have done that is new consists in proving the following: 1) that the existence of classes is linked only to specific historical forms of struggle characteristic of the development of production; 2) that the class struggle inevitably leads to the dictatorship of the proletariat; 3) that this dictatorship itself constitutes merely a transition to the abolition of all classes and the establishment of a social order in which there will be no place for class divisions. Ignorant people who deny not only the struggle but also the very existence of classes prove only that, despite all their bloody and ostensibly humanistic ranting, they regard the social conditions on which the rule of the bourgeoisie rests as the final product... of history, that they are merely servants of the bourgeoisie’* (letter from Marx to Weydemeyer, 5 March 1852).

Opportunism consists in the denial of the dictatorship of the proletariat. *‘Opportunism,’ says Lenin, ‘does not carry the recognition of the class struggle through to the very crux of the matter, to the period of transition from capitalism to communism, to the period of the overthrow of the bourgeoisie and its complete destruction. In reality, this period is inevitably a period of unprecedentedly fierce class struggle, of unprecedentedly acute forms, and consequently, the state of this period must inevitably be a state that is democratic in a new sense (for the proletariat and the poor in general) and dictatorial in a new sense (against the bourgeoisie)’* (Vol. 14. Part 2. p. 324).

Anyone who wishes to leap from the bourgeois state—this instrument of violence and exploitation of the working people by the capitalists—straight into a stateless society

(as, for example, the anarchists do), fails to understand that the bourgeois state will never of its own accord die out .

'The replacement of the bourgeois state by the proletarian state is impossible without a violent revolution. The abolition of the proletarian state, i.e. the abolition of all states, is impossible except through "withering away"' (Vol. 14, Part 2. p. 313). Without this final type of state, the transition to a classless society is impossible. The bourgeois state can only be overthrown, and the only class capable of overthrowing it

is the proletariat. The proletarian state, however, will wither away of its own accord. As classes disappear with the restructuring of the entire production process, so too will any need for state power. Where there are no classes, there is no state.

Lenin's great achievement was the restoration of Marx's doctrine on the state and on the dictatorship of the proletariat. The Social Democrats have in every way distorted or even outright rejected—and continue to reject—this doctrine of Marx. Lenin's **The State and Revolution** represents not merely a restoration of Marx's doctrine, but also its further development on the basis the Marxist, materialist-dialectical method.

Lenin's contribution to the further development of the problem of the strategy and tactics of the proletarian revolution is no less significant. Here, too, he provided examples of the application of revolutionary dialectics. Strategy is the doctrine of the fundamental, general forces of the revolution, the doctrine of taking into account one's own forces, i.e. the forces of the proletariat and those classes which can and must serve as reserves in the social revolution. But strategy also involves taking into account the forces of the enemy (the bourgeoisie, the nobility, large landowners, the kulaks). Strategy therefore constitutes a comprehensive plan for the proletariat's class struggle to establish its dictatorship and build a new society during the transitional period from capitalism to socialism. Tactics, on the other hand, are part of strategy: the theory of the proletariat's struggle for a specific phase of this period, the line of conduct during the ebb and flow of the revolutionary tide, the replacement of one form of struggle with another, and the substitution of certain slogans for others depending on the revolutionary situation. Correct tactics must be as flexible as possible. Strategy is needed to win the war, whilst tactics are

needed to win individual battles through the organisation of forces, their use in all

forms of struggle, in order to achieve success and make the most of its results (see Stalin, 'On Lenin and Leninism'). War is the continuation of politics by other, specifically open and violent, means. Lenin refers to this formulation by Clausewitz, one of the great writers on the philosophy of war, whose ideas were inspired by Hegel. Both Marx and Engels regarded every war as a continuation by other means of the politics of different countries and different classes, all striving for the same goal. Marx and Engels distinguished the objective, economic-political content of imperialist war from the subjective ideology required by the bourgeoisie to mask its real motives.

'The objective content of war,' writes Lenin, *'is the "continuation of politics" by imperialism, i.e. the plundering of foreign nations by the decrepit bourgeoisie of the "great powers" (and their governments); whilst the 'subjective' prevailing ideology consists of 'national' slogans spread to stupefy the masses'* (Vol. 13. p. 161). But the proletariat cannot win the war against the bourgeoisie and overthrow it without utilising all reserves, all natural allies, in every possible way, neutralising unstable, unsteady, wavering elements, the intermediate strata between the proletariat and the bourgeoisie. To destroy the capitalists, it is necessary to educate, enlighten, organise and discipline the masses, transforming them into conscious fighters of the revolution. Only the party of the proletariat can do this.

'That is precisely where,' says Lenin, *'— among other things, the significance of the party organisation and of party leaders worthy of the title, so that through the sustained, persistent, varied and comprehensive work of all thinking representatives of a given class, the necessary knowledge, the necessary experience, and the necessary — apart from knowledge and experience — political instinct may be developed for the swift and correct resolution of complex political issues'* (Vol. 17, p. 157).

One of the main conditions for success lies in concentrating the main forces of the revolution at the decisive moment on the enemy's weakest point. The offensive, however, can only be launched when not only the vanguard is ready for battle, but when the revolutionary wave has advanced so far that

It is possible to draw the reserves into the struggle alongside them by organising them into councils, at street demonstrations, rallies and through literature. Lenin formulates the tactical conditions for success, drawing on Marx, in the following words: 1) *'never to toy with an uprising, but once it has begun, to be firmly resolved to see it through to the end;* 2) *it is necessary to concentrate a great superiority of forces at the decisive point, at the decisive moment, for otherwise the enemy, possessing better training and organisation, will destroy the insurgents;* 3) *once the uprising has begun, one must act with the utmost determination and without fail go on the offensive. 'Defence is the death of an armed uprising'* (Vol. 14, Part 2, p. 270); 4) one must endeavour to take the enemy by surprise and 5) strive to achieve at least small successes every day. An uprising must be an attack, not a defence, for, we repeat, defence is death for an armed uprising. It will give the enemy time to gather its forces. We have already discussed elsewhere the appropriate moment to launch an uprising, when hostile forces are sufficiently confused and have turned on one another. The art of insurrection also requires the ability to retreat when the enemy is strong, when retreat is the only means of preserving the revolutionary army's combat effectiveness, preventing the enemy from crushing it. A classic example of such a retreat, carried out by Lenin, is the Treaty of Brest-Litovsk. The greatest danger lies in the vanguard, i.e. the Bolshevik Party, becoming detached from the main masses of the proletariat, which at the same time threatens the loss of the working class's influence over the broad masses of peasants. We must preserve the connection with the masses at all costs, so as not to lose touch with them. Otherwise, the revolution may turn into a desperate revolt by a handful of conspirators.

'With a vanguard alone,' says Lenin, 'victory is impossible. To throw only one vanguard into a decisive battle, whilst the whole class, whilst the broad masses, have not taken up positions of either direct support for the vanguard or, at the very least, benevolent neutrality towards it and a complete inability to support its opponent, would be not only foolish but criminal' (Vol. 17. p. 179). This requires not only agitation, but also the masses' own political experience. Strategy demands that we continue to seek out, on every occasion, that particular link in the whole

chain of the process, by seizing which one can hold on and prepare for further victory. An example of this rule is the development of trade during the transition from civil war to economic reconstruction.

An extremely important question of strategy is the revolutionary party's attitude towards reforms. It is incorrect to assume that the revolutionary party is fundamentally hostile to any reform. The difference between reformists and revolutionaries lies in the fact that for the former, reform is the sole or at least the main task. They speak of revolution only on festive occasions to lift the spirits of the masses. For revolutionaries, the main thing is to prepare for the revolution. They regard reform as a by-product of the revolutionary movement, which also helps to undermine bourgeois power and serves as a cover for intensifying underground work and preparing the masses to overthrow the bourgeois dictatorship. Conversely, the reformist welcomes reforms in order to abandon all underground work (see Stalin, 'On Lenin and Leninism').

But this does not exhaust the whole question of the relationship between reform and revolution, but relates only to that phase of the struggle which precedes the victory of the proletariat. After its victory, even in a single country, the relationship between reform and revolution changes somewhat. This change is not fundamental, but it can only be understood on the basis of the philosophy and politics of Marxism, says Lenin. *'After victory... reforms (being, on an international scale, the very same "by-product") constitute, for the country in which victory has been won, moreover, a necessary and legitimate respite in those cases where it is clear that, after their utmost exertion, there are insufficient forces for the revolutionary implementation of this or that transition. Victory will provide such a 'reserve of strength' that there will be enough to hold out even in the event of a forced retreat — to hold out both materially and morally'* (Vol. 18, Part 1, p. 382).

LENIN'S VIEWS ON THE LATEST STAGE OF THE DEVELOPMENT OF NATURAL SCIENCE

We have already discussed the fact that Marxism is a coherent worldview. Not only did it provide the first materialist and dialectical, genuinely scientific explanation of history in the form of historical materialism, but it also constitutes a method—namely, the dialectical method—for all sciences. This was how both Marx and Engels viewed it. In 1878, Engels' work entitled 'The Revolution in Science by Mr Eugen Dühring', or 'Anti-Dühring', was published. Marx read this book whilst it was still in manuscript form, fully approved of it, and himself wrote Chapter X on the development of economics. The first half of the book contains Marx and Engels' views on contemporary issues in natural science. It was published in three editions during Engels' lifetime. Since then, natural science has made giant strides forward. At that time, the kinetic theory of matter hardly existed, modern electrodynamics had only just begun to develop, and there was no theory of radiant energy, quantum theory, etc. Proof of Lenin's remarkable capacity for work is the fact that he was able to keep pace with the dizzying development of natural science that was unfolding before his very eyes. A significant part of his philosophical work, 'Materialism and Empirio-Criticism', deals with philosophical problems arising from the latest discoveries in physics and chemistry. And in this field, he proved to be more than just an amateur interested in the development of natural science. Aware of the immense significance of natural science for technology and the future of humanity, Lenin engaged with it with a specific practical aim. He utilised the achievements of the latest natural science to refute idealism, including empirio-criticism. This pursuit also became necessary for him because many of the empirio-critics were natural scientists (at least the founders of the theory). They sought to prove the correctness of their viewpoint through an idealistic interpretation of the results of natural science. Modern natural science develops such a complex picture of the world that not only laypeople, but even some natural scientists do not

believed in the objectivity of this picture or, as natural scientists put it, this model of the world. Mach rejected the atomistic theory as a reflection of reality and regarded it merely as a working hypothesis, convenient for the most economical systematisation of our experiments. Relativists became even more entrenched in their false belief when research into electrodynamic processes in highly rarefied gases led to the discovery of electrons, these 'atoms of electricity'. Electrons are particles of extremely small mass (1/1840th of the lightest type of atom, the hydrogen atom). Doubts arose as to their actual existence. A number of physicists regarded them merely as our inventions—admittedly very convenient for systematising experimental data, but unreal. Thus arose a peculiar school of thought, which Lenin, following other critics, calls physical idealism. It was against this trend in natural science that he wrote the last two chapters of the aforementioned work. He convincingly demonstrates that the idealist interpretation of electron theory is completely untenable. He showed that the new theory of matter not only does not refute materialism but, on the contrary, constitutes one of its most brilliant proofs—though not of 18th-century materialism, the so-called mechanical materialism, but of dialectical materialism.

Lenin begins by referring to a Hungarian Marxist, Diner-Dénes, who published an article entitled 'Marxism and the Latest Revolution in Natural Science' ('Die Neue Zeit', 1907, No. 52). Diner-Dénes compared the latest discoveries in natural science with

Engels's 'Anti-Dühring' and came to the conclusion that they boil down to what Engels had brought to the fore. Namely, that there are no irreconcilable opposites in nature—they are introduced into nature solely by us. He points out that light and electricity are manifestations of one and the same force of nature, that chemical affinity boils down to electrical processes, that the atoms of chemistry, *'the number of which continues to grow ever more, as if to mock the unity of the world, turn out to be destroyed and decomposed'* (quoted from Lenin. Vol. 10. p. 209). *'All phenomena of nature are motion, and the difference between them lies solely in the fact that we, human beings,*

we perceive this movement in various forms... The situation is exactly as Engels said. Just as with history, nature is subject to the dialectical law of motion.' So says Diner-Dénes, and Lenin agrees with him to a certain extent. ***'Joseph Diner-Dénes,'*** writes Lenin, — ***shares, like the author of these lines, the viewpoint of the very 'rank-and-file Marxist' of whom our Machists speak with such majestic contempt'*** (ibid.). In what is the essence of the crisis that arose due to the unprecedented growth of physics? The electronic theory undermines one of fundamental principles of natural science, the principle conservation mass. An atom is a tiny world much like the solar system. At centre is a positively charged nucleus, around which electrons—that is, negatively charged particles—orbit at tremendous speed. It turns out that mass is not constant, as it ought to have been according to the principles of classical mechanics, but that it increases in a specific way as speed of motion. Physicists therefore introduced the concept of variable mass or electromagnetic mass. Whether the electron still possesses mass in the old sense, i.e. so-called inertial mass, is unknown, but in any case it is negligible in relation to electromagnetic mass. The famous French physicist Henri Poincaré, drawing the correct conclusion from this, asserts that the foundations of mechanics are being undermined and that all our concepts from the realm of nature, such as space and time, atoms and electrons, are not snapshots of nature, images of something external in relation to human consciousness, but products of consciousness. Lenin thus characterises two trends in modern physics: ***'In philosophical terms, the essence of the "crisis of modern physics" lies in the fact that old physics saw in its theories "real knowledge of the material world", i.e. a reflection of objective reality. A new trend in physics sees in theory only symbols, signs, marks for practice, i.e. denies the existence of objective reality, independent of our consciousness and reflected by it'*** (ibid. p. 214). Thus, some physicists have replaced the materialism of old physics with idealism and agnosticism. ***'Matter has disappeared',*** — This is how one might summarise the viewpoint of this school of thought.

'What does the phrase "matter has disappeared" mean?' asks Lenin. 'When physicists say, "Matter is disappearing", they mean that, until now, natural science has reduced all its investigations of the physical world to three ultimate concepts — matter, electricity and ether; now, however, only the last two remain, for matter can be reduced to electricity... Instead of dozens of elements, it is therefore possible to reduce the physical world to two or three... Natural science thus leads to the unity of matter — this is the true meaning of that phrase about the disappearance of matter, about the replacement of matter by electricity, etc., which confuses so many. 'Matter disappears' — this means that the limit to which we have known matter until now is disappearing; our knowledge goes deeper; those properties of matter which previously seemed absolute, unchangeable, fundamental (impenetrability, inertia, mass, etc.) and which are now revealed to be relative, inherent only in certain states of matter. For the sole 'property' of matter, with the recognition of which philosophical materialism is associated, is the property of being an objective reality; of existing outside our consciousness' (Vol. 10. p. 218).

The Machists believed that the discovery of the mutability of mass refutes materialism, as if it were demanding that the elements (atoms, electrons) constitute some kind of unchanging entities. However, such a demand is characteristic only of metaphysical, i.e. anti-dialectical, materialism. From the standpoint of dialectical materialism, one must ask: do electrons exist outside human consciousness as an objective reality? If they do, then physical idealism is untenable. For dialectical materialism, matter means 'nothing other than: objective reality, existing independently of human consciousness and reflected by it'. (Ibid. Our italics. — A. V.) 'But dialectical materialism insists on the approximate, relative nature of any scientific proposition concerning the structure of matter and its properties, on the absence of absolute boundaries in nature, on the transformation of moving matter from one state into another... However strange it may seem from the standpoint 'common sense' the transformation of weightless ether into weighty matter and back again, however 'strange' the absence in

the electron of any mass other than electromagnetic mass, however unusual the restriction of the mechanical laws of motion to a single realm of natural phenomena and their subordination to the deeper laws of electromagnetic phenomena, etc.,—all this is merely further confirmation of dialectical materialism. Modern physics veered into idealism, chiefly because physicists were unfamiliar with dialectics. They fought against metaphysical... materialism, with its one-sided 'mechanistic' nature — and in doing so, they threw the baby out with the bathwater. By denying the immutability of the elements and properties of matter known up to that point, they slid into denying matter itself, i.e. the objective reality of the physical world. (Our italics.

— A. V.) *By denying the absolute nature of the most important and fundamental laws, they ended up denying any objective regularity in nature, declaring the laws of nature to be mere conventions'* (Vol. 10, pp. 218–219).

We have included this lengthy quotation because there is no more accurate way and clearly to characterise the relationship of dialectical materialism to the question of the contemporary crisis in physics, and to the idealist distortion by the Machists of the data of modern natural science, than Lenin does here. The Machists conflated mechanical materialism with dialectical materialism. Dialectical materialism by no means insists on the immutability of atoms, electrons and whatever other as-yet-undiscovered particles of matter there may be. On the contrary. The mutability of elements follows directly from the foundations of dialectical materialism. From its standpoint, only one thing is unchanging: *'This is the reflection by human consciousness (when human consciousness exists) of the external world that exists and develops independently of it'* (ibid.). Dialectical materialism requires no other immutability, such as the immutability of atoms or 'absolute substance'. We are still aware of the mutability of atoms, but *'the electron is just as inexhaustible as the atom; nature is infinite, but it exists infinitely'* (ibid.). It is only the unconditional recognition of the existence of nature outside human consciousness that distinguishes dialectical materialism from relativism and idealism. Lenin quotes the French philosopher Rey, who points out that a whole series of major natural scientists, such as Boltzmann, Maxwell, Helmholtz, Kelvin, continue the tradition

of the 'mechanism', i.e. materialism (adds Lenin), and understand the laws of mechanics as special cases of the laws of electrodynamics. The constancy of mass and other principles of mechanics will by no means lose their validity, as the Machists suppose. These principles retain their validity, but only for speeds that are small in relation to the speed of light. But this does not in any way imply a rejection of materialism! With regard to high speeds, the laws of motion turn out to be more complex. But materialist 'mechanists' regard physical theories as a snapshot, an approximate copy of objective reality.

"In this lies materialism," — says Lenin. In bourgeois society, it is considered improper to speak of oneself as a materialist. Therefore, physicists who are materialists call themselves mechanists. But mechanism is materialism, — says Lenin.

Thus, as is clear from the above, the issue here is the struggle between the two main currents, materialism and idealism, in this case in the realm of natural phenomena. At the same time, Lenin emphasises, we must not forget that even the most outstanding theorists are unfamiliar with dialectics, and hence their vacillation and inconsistency.

The idealist physicist attempts to 'overcome' matter in yet another way. An attempt is made to conceive of motion without matter. Lenin points to the proletarian philosopher I. Dietzgen, who as early as 1869, in his book **The Essence of Intellectual Labour**, characterised idealists by their desire for spirit without matter, for force without substance. The conception of motion without matter 'seems' to idealists more 'economical' for thought. However, no movement is possible without that which moves. The idealist, speaking of movement without matter, tacitly admits the existence of thought after the disappearance of matter. 'Matter has disappeared,' they say. 'But has thought remained?' asks Lenin. 'If it has not remained, then nothing has remained. If, however, it has remained, then it is clear where the idealist is heading. He treats thought as something detached from matter, as existing even after the disappearance of all matter, i.e. including the brain.'

Where do such absurdities come from, and what is their source? Lenin finds this source in two fallacies of idealist thinkers. Firstly, in the fact that by 'materialism' they necessarily mean 'mechanical materialism', which insists on the universality of the laws of mechanics, and

only them, for the whole of nature. However, the achievements of modern natural science have shown that the laws of classical mechanics are incapable of explaining electromagnetic phenomena. From the standpoint of 18th-century mechanical materialism, it is impossible to construct an electronic theory. But this does not imply that materialism in general is wrong, only that mechanical materialism is wrong. From this follows the correctness of dialectical materialism, which always insists on the mutability of all particles of matter discovered by us. Another point of misunderstanding lies in the fact that the relativist physicist, noting the relativity of our knowledge of nature and the constant replacement of one set of laws by another, comes to the false conclusion that all these laws are mere fictions of the scientific imagination. Such a delusion is, once again, the result of ignorance of dialectics, ignorance, first and foremost, of the relationship between relative truth and absolute truth. From the relativity of every known truth, the relativist concludes that it is dependent on human consciousness. From this point of view, relative laws mean that they are merely convenient fictions of our mind. The dialectical-materialist solution, on the contrary, consists in the fact that relative truth signifies an approximation, an approximate reflection of reality. Absolute truth is composed of the sum of relative truths as the latter come ever closer to the reality they reflect. The relationship between relative and absolute truth is a historical one. Each generation is closer to absolute truth than the previous one. At the same time, one must never lose sight of the fact that, within a limited period of its history, humanity will not achieve absolute correspondence between knowledge and objective reality.

But, one might ask, does the latest theory of the structure of matter contradict dialectical materialism on one very important point? The electronic theory is based on the assumption that matter consists of positively and negatively charged particles. Apart from these two types of particles, so to speak, the building blocks of the universe, no others exist. Dialectical materialism, for its part, always emphasises the concreteness of every process. However, if physics recognises no other elements apart from the two mentioned, how can one still speak of

the distinctiveness of each individual physical process? Physicists point out that modern quantum theory provides brilliant confirmation of the monistic view of nature, which holds that the world is a unified whole. But this could not be the case if the world consisted of a combination of a large number of discrete elements in various configurations. There are already around a hundred chemical elements, and this number is still growing, as natural scientists continue to discover new elements. The elements, in turn, differ greatly (qualitatively) from one another in their properties. Although these elements are grouped into a series of subgroups based on properties showing a certain similarity, these subgroups nevertheless differ sharply from one another. How can the unity of the world be justified, given that its building blocks differ so sharply from one another?

Electron theory provides the answer to this question. Atoms of different substances differ from one another in the number of electrons—that is, homogeneous, negatively charged material particles—on the one hand, and in the composition of the positively charged nucleus, on the other. A hydrogen atom, for example, consists of a nucleus and a single electron, which—according to Bohr’s theory, now of merely historical significance—orbits the nucleus in an elliptical path. The helium atom—a completely different substance—consists of a nucleus and two outer electrons. As we move from lighter atoms to heavier ones, the number of electrons increases according to a specific law; finally, the uranium atom contains more than 90 outer electrons. The difference between different types of atoms thus boils down to the different number and arrangement of orbiting electrons and the structure of the nucleus. But this implies that the qualitative differences between different types of atoms are merely an illusion, and that in reality, quality is reduced to quantity. However, nothing could be more mistaken than such a hasty conclusion. The point is that new qualities—i.e., different types of atoms—cannot be explained by the number of constituent electrons alone, i.e., by the fact that this number is either greater or smaller. In addition to differences in number, one must also take into account that the electrons themselves possess a certain quality, namely a negative electric charge. The nucleus, however, possesses a

a different charge — a positive charge. Moreover, the nucleus of almost all elements also contains electrons. But there is a third factor. This is the order or arrangement of the electrons themselves. The electrodynamic effect of a composition of electrons is different if the electrons within it are arranged differently. Thus, a new quality represents a synthesis of the basic qualities (positive and negative charges) depending on the quantitative and ordinal relationships of the constituent parts. We have already spoken of the law of dialectics: the transition of a quantitatively defined quality into a new quality, provided that this quantity reaches a certain limit. The electronic theory provides a brilliant demonstration of this law. Not only does it not contradict dialectical materialism, but it actually represents one of its greatest triumphs.

Thus, the unity of the world, on the one hand, and the qualitative diversity of chemical elements, on the other, — this apparent contradiction is brilliantly resolved by the electronic theory. At the same time, it provides excellent confirmation of the law of dialectics. It must not be forgotten, however, that physics, as an empirical science, does not proceed from the requirement that matter must be homogeneous at its core. The recognition of the homogeneity of matter can and must be not a requirement, or, as philosophers say, a postulate, but the result of experiments. So says Lenin.

Yet one extremely important and difficult question remains. Is it possible to conceive of the origin of our mental phenomena as a complex interaction of electrons, or atoms? Lenin quotes the famous Viennese physicist Boltzmann, calling him a materialist, although Boltzmann himself was reluctant to describe himself as such. *Opponents of materialism, says Boltzmann, cannot conceive of the origin of the mental from the material. But, he says, this means nothing. Such an objection resembles the opinion of an uneducated person who asserts that the sun cannot be 20 million miles from the earth, for he cannot imagine it.*

‘Boltzmann,’ says Lenin, ‘does not renounce the ideal of science to represent mind and will as “complex actions of particles of matter” (Vol. 10, p. 242).

What is the essence and significance of physical idealism? Lenin rightly points out that Mach, Avenarius, Poincaré, Pearson, Bogdanov, Yushkevich and others certainly have their differences. But that is not the point; the point is that they agree on the main thing: they all preach philosophical idealism. They all deny that our sensations are images of objective reality. From the standpoint of materialism, the internal, domestic differences between the schools of idealism are unimportant; they are important only to themselves. In what does Lenin find the causes of such a colossal error, such a 'wavering of thought'? The first of these causes lies in the fact that theoretical physics relies, and cannot but rely, on mathematics, which constitutes a field of research of a highly abstract nature. Mathematics is a vast science, a system of extremely complex theories. Although the latter are, of course, based on the direct perception of external reality (just as in all other sciences), mathematics, as a science of calculation, is compelled to create truly dizzying abstractions. Here it is already very difficult to discern the sensory origin of the basic concepts, as snapshots of reality. Consequently, over the last hundred years, two types of researchers have emerged in the field of physics: one group can be characterised as mathematical researchers, the other as physical, experimental researchers. Experimenters, for the most part, view the abstract, complex constructions of mathematicians as something of little use to them in their laboratory research. Experiment is in constant contact with concrete reality. Physicists of the first type, in turn, have transformed theoretical physics into mathematical physics, almost into applied mathematics. Material elements have faded greatly in their hands; only mathematical symbols remain, the so-called differential equations.

Mathematics, of course, is an essential tool for physics. Physics is a highly developed science concerned with the precise quantitative calculation of the motion of interacting material elements. Therefore, the error lies, of course, not in the fact that physics makes use of mathematics, but in the fact that the mathematician-physicist is inclined to forget

that mathematics is for physics merely one of its tools, that physics is by no means a branch of mathematics. It is precisely this misunderstanding—that physics is applied mathematics—which constitutes one of the causes of the crisis in modern physics (the first of those listed by Lenin). Idealistic physics holds that matter must disappear, leaving only equations behind. This, as Lenin correctly pointed out, is one of the roots of modern physical idealism.

Another cause that gave rise to physical idealism is — the principle of relativism. We have seen that Lenin, in a certain limited sense acknowledges the relativity of our knowledge. But the idealists completely misunderstand the relationship between relative and absolute truth. Proceeding from the formal laws of thought, they assert that the relative is relative, and the absolute is absolute. Yes is yes, no is no. Such an absolute distinction between the relative and the absolute is incorrect. Only ignorance of dialectics could have led them to this error, ignorance of the fact that *'the sum of relative truths in their development constitutes absolute truth... that in every scientific truth, despite its relativity, there is an element of absolute truth'* (Vol. 10, p. 261). In short, relative truths are relatively true reflections of an object independent of us.

The inability to link relative and absolute truth dialectically constitutes the second cause of the emergence of physical idealism. But there is also a third cause, of a more general nature, arising from social relations. On the side of materialism stands, says Lenin, the majority of natural scientists. But a minority of them, under the influence of the collapse of old theories brought about by the great discoveries of recent times and the crisis this has caused, have strayed onto the path of idealism. *'Behind the epistemological scholasticism of empirio-criticism, one cannot fail to see the struggle of parties in philosophy, a struggle which ultimately expresses the tendencies and ideology of the hostile classes of modern society. Modern philosophy is just as partisan as it was two thousand years ago.'* The contending sides are idealism and materialism. Contemporary physics is confirmation

of dialectical materialism. But representatives of the bourgeoisie are clutching at straws like a drowning man and trying to preserve *'a breeding ground for fideism, which arises among the lower strata of the masses as a result of ignorance, oppression and the blind savagery of capitalist contradictions'*. *'The objective, class-based role of empirio-criticism is entirely boils down to serving the fideists in their struggle against materialism in general and against historical materialism in particular'*" (Vol. 10, pp. 260, 303).

Physical idealism arose as a result of the inability of one school of natural scientists in the field of physics to rise from metaphysical materialism to dialectical materialism. Modern physics is moving towards this only correct method, but it is doing so not consciously, but spontaneously, in zigzags. *'Modern physics,'* writes Lenin, *'is in labour. It is giving birth to dialectical materialism. The labour is painful. Apart from a living and viable being, it inevitably produces some dead products, a few refuse items destined for the rubbish bin. Among these refuse are all physical idealism, all empirio-critical philosophy together with empirio-symbolism, empirio-monism, and so on and so forth.'*" (Vol. 10, p. 264).

VI.

LENIN'S VIEWS ON RELIGION

That religion is one of the most vicious enemies of the proletariat's struggle for its liberation from the yoke of capitalism is clear to every conscious proletarian. In his works **Ludwig Feuerbach** and **Anti-Dühring**, Engels provides an excellent analysis of the origins and class significance of religion. Ideologies in general, and religion in particular, constitute a superstructure rising above the material basis of production. But they are complex mental formations, whose connection with their productive basis becomes increasingly remote as ideology itself drifts away from material life. The state, the law, and the class struggle constitute ideological strata closer to the base. The ruling classes create a state for themselves as an organ to defend their interests against external attacks and internal enemies, that is, against the resistance of the oppressed classes. However, once established, the state strives to become independent of society as a whole, and the more it acts as an instrument of violence for a particular class, the more independent it becomes. On the basis of state power, a theory of the state emerges, aimed at justifying and consolidating the existing state system. The economic content is obscured and the legal form is brought to the fore.

'Public and private law are regarded as independent fields which have their own distinct historical development and which must and can be subjected to independent systematic investigation through the consistent resolution of all internal contradictions' (Engels, 'L. Feuerbach', p. 59).

Philosophy and religion are even further removed from the economic basis. The connection between ideas in the realm of philosophy and religion and the material conditions of life is further obscured by intermediate links. Philosophy is the product of the development of cities, i.e. of the urban bourgeoisie. It expressed an ideology corresponding to the transition of the petty and middle bourgeoisie into the big bourgeoisie, and one that facilitated this transition.

Even further

‘Religion,’ says Engels, ‘arose in the most primitive times from the darkest, most primitive conceptions of people about their own nature and that of the external world. But, once it has arisen, every ideology develops in connection with the whole body of existing ideas and subjects it to further processing. Otherwise, it would not be an ideology, i.e. it would not deal with ideas as independent entities that develop autonomously from themselves and obey their own laws. That the material conditions of life of the people in whose minds this process of thought takes place determine it, is, of course, not realised by these people, for otherwise all ideology would come to an end. The original religious conceptions, for the most part common to each given kinship group of peoples, develop in a distinctive manner within each individual people following the disintegration of such groups, depending on the living conditions that have fallen to their lot. In one particular group of peoples, namely the Aryan (so-called Indo-European) peoples, the process of the development of religious conceptions has been studied in detail by comparative mythology. The gods of each individual people were national gods, whose power did not extend beyond the borders of the national territory they protected. Beyond those borders lay the realms of other gods. All these gods lived only as long as the peoples who had created them existed, and fell with them” (“L. Feuerbach”. p. 60).

When in the first century before our era was created The Roman Empire, comprising hundreds of peoples, had already come into being, and the groundwork had been laid for the emergence of a religion more suited to the new circumstances of these peoples. It goes without saying that no ideology, once it has become the genuine ideology of the masses, can be artificially created by means of decrees issued by interested classes. Such a universal religion did indeed arise, but it emerged imperceptibly from a mixture of Eastern, chiefly Jewish, theology and the Greek philosophy of that period, particularly Stoic philosophy. This was Christianity. It is difficult to determine what the original form of the new religion was. In any case, it was not as it became when Christianity, having spread throughout

vast empire, became the dominant religion. Christianity took on its official form at the Council of Nicaea (in 325 AD), which adapted it to the status of a state religion. Following the Great Migration and the collapse of the Roman Empire, the Christian religion was transformed and adapted to the needs of the feudal system, which had replaced the slave-owning system of the old empire. Catholicism became the religion of feudalism. However, the class conflict between the feudal lords and the slowly developing urban bourgeoisie found its ideological expression in the development of various forms of sectarianism, 'heresy' (as official representatives of Catholicism termed any deviation from the Church). The Roman Church developed its ideology in the form of Catholic theology as the worldview that prevailed in the feudal state. Theology drew even politics, jurisprudence and philosophy into its orbit. Philosophy became the handmaiden of theology. The masses were fed by the clergy with nothing but religious fare.

Opposition from the urban bourgeoisie could manifest itself at that time only in the form of religious opposition. But in the cities there existed a broad stratum of the poor,

— these precursors of the later proletariat (day labourers and servants of all kinds, who stood outside the framework of the guilds). Accordingly, says Engels, religious heresy was already divided into two types at that time: bourgeois-moderate and plebeian-revolutionary, hated

by the bourgeois heretics as well. The struggle between the feudal state and the urban bourgeoisie grew into a massive revolution in Germany in the 16th century — the Reformation (Lutheranism). At the same time, the serfs also rose up, but their revolution was suppressed by the feudal lords' troops. The struggle lasted 130 years, reaching its climax at the beginning of the 17th century in the Thirty Years' War (1618–1648). Germany was utterly devastated and withdrew from the world stage for a full three centuries. Yet at the same time, in Switzerland, France and a number of other countries, another offshoot of the Reformation took hold: Calvinism. Lutheranism, however, became the religion of the bourgeoisie only in Germany and in some northern countries.

Calvin's Reformation took a more radical course. It gave expression to a republican ideology and provided an ideological framework for the Dutch bourgeoisie's war of liberation and for the English bourgeois revolution. Here, Calvinism served as a religious expression of the economic and political interests of the bourgeoisie of the time. However, because the English Revolution ended in a compromise between part of the feudal aristocracy and the bourgeoisie, Calvinism did not become the dominant religion in England. The Church of England was restored, albeit in a form heavily influenced by Calvinism.

In France, the course of the religious wars took a different turn. Louis XIV eradicated Calvinism by every violent means (in 1685). Consequently, the bourgeois revolution found expression not in a religious but in a purely political, anti-religious or at least irreligious form, which was more in keeping with the state of the bourgeoisie at that time. *'Instead of Protestants,'* writes Engels, *'free thinkers sat in the national assemblies. Christianity had entered its final stage. From then on, it was no longer able to provide a religious cloak for the aspirations of any progressive class. It increasingly became the exclusive preserve of the ruling classes, who used it as a means of control, as a bridle for the lower classes'* (ibid., p. 62).

Here, in brief, is Engels's excellent analysis of the origin of religion, and of the origin, development and decline of the Christian religion.

We shall now attempt to summarise Lenin's views on religion. We considered it necessary to first acquaint the reader with Engels' views on this question, partly because Lenin repeatedly refers to Engels on this matter, and partly because Lenin focused his attention on the relationship between religion and modern society, i.e. on capitalism and its classes.

Modern society is entirely built upon the exploitation of the working class by a tiny minority of landowners and capitalists. The economic oppression of workers and poor peasants inevitably gives rise to ideological oppression as well. Capitalism oppresses the working people both economically and

politically, as well as spiritually and morally. Religion is one form of spiritual oppression. Religion is rooted in ideas, 'generated by the dull oppression of man by external nature and class oppression, which reinforce this oppression and lull the class struggle to sleep'. This is how Lenin characterises religion in one of his letters to Gorky:

'The powerlessness of the exploited classes in their struggle against their exploiters inevitably gives rise to a belief in a better life after death, just as the powerlessness of the savage in his struggle against nature gives rise to a belief in gods, devils, miracles and the like. To those who labour all their lives and live in want, religion teaches humility and patience in this life, consoling them with the hope of a heavenly reward. And to those who live off the labour of others, religion teaches charity in this life, offering them a very cheap justification for their entire exploitative existence and selling tickets to heavenly bliss at a similar price. Religion is the opium of the people. Religion

— a kind of spiritual moonshine in which the slaves of capital drown their

human image, their demands for a life worthy of a human being" (Vol. 7, Part 1, p. 47).

But, says Lenin, a slave who has realised his slavery and risen to struggle is already beginning to free himself from slavery. A conscious worker, hardened by factory life, looks with contempt upon all religion and seeks a better life for himself here on earth. It is not true that science is compatible with religion. Their 'compatibility' is a clerical lie, entrenched by the interests of the bourgeoisie. The modern bourgeoisie supports religion, but the bourgeoisie of the 18th century, preparing for its own revolution, was the first to declare war on religion. 'Crush the viper!' (religion) — that was the slogan of the French Enlightenment thinker Voltaire. But the bourgeoisie's anti-religious stance has long since become a thing of the past. In the struggle against the looming proletarian revolution, the bourgeoisie will stop at nothing. It seeks to suppress the discontent of the working masses both through violence and through a more 'civilised' method: spiritual oppression. Religion plays a prominent role in this.

The question arises: what should be the attitude of a consistent revolutionary party towards religion? After the analysis of the essence of religion provided by Engels and Lenin, there can be and not a shadow of doubt regarding this attitude.

The Communist Party must fight against all forms of religious delusion. On closer examination of this struggle, the question arises: how, and by what means, should this struggle be waged? In resolving this question, one must bear in mind that it is not only the revolutionary party of the proletariat that is waging war against religion, but also the so-called enlightened bourgeoisie and a section of the bourgeois intelligentsia. What, then, is the difference between the struggle against religion waged by these two opposing social forces? The tradition of anti-religious sentiment among the revolutionary bourgeoisie of the 18th century still echoes to this day in the form of the war against religion waged by bourgeois democrats, anarchists, and so on. It must be noted that sometimes even good revolutionaries from the ranks of the labour movement have adopted and continue to adopt the bourgeois method of waging war against religion—due to a lack of clarity regarding Marxism's stance on matters of religion and its official organisation—the church. The 'enlightened' bourgeoisie sometimes attempts to divert the workers' attention from the pressing issues of the class struggle by mounting a pseudo-liberal campaign against clericalism. Such a cunning tactic was employed by Bismarck against the Centre Party, which represented the interests of the Roman clergy, and by the liberal government of France under the slogan: to separate state and church, to free themselves from the influence of the Pope on the internal affairs of the state. But all this bourgeois tactic is nothing more than a trap designed to distract the working masses and the petty bourgeoisie from their economic and political interests.

This is one form of the bourgeoisie's 'struggle' against religion. But anarchists are also waging war against religion, declaring a merciless war not only against the church—that is, a social organisation based on religion—but also against religion as such. The anarchists placed this war at the centre of their activities in London in 1874. Lenin points out that Engels spoke out sharply against such tactics towards religion and reproached the anarchists for failing to understand *that only the class struggle of the working masses, by comprehensively drawing the broadest strata of the proletariat into conscious and revolutionary social practice, is capable of actually liberating the oppressed masses from the yoke of religion, whereas the proclamation of a war against religion as a political task of the workers' party is an anarchist slogan*' (Vol. 11, Part 1, p. 251).

To declare such a war is to repeat Bismarck's policy, which led only to a revival of religion. The ignorant and downtrodden masses of the oppressed have not yet outgrown their religious ideology. Therefore, shrewd clericals are still able to mobilise them in the 'defence' of religion. Such a struggle can only strengthen militant clericalism. Lenin emphasises that Engels pointed out a different path of struggle against religion for the workers' party. The proletariat needs to organise itself and become educated. Engels regarded a political war against religion as an adventure. Religious feelings among the proletarian masses cannot be eradicated by force. Only patient educational work can lead to the result we desire—the withering away of religion. Police measures against this or that religion can do nothing here.

What is the basis of the proletarian party's struggle against religion? It is clearly set out in the Erfurt Programme of the Social Democratic Party of Germany (1891). Religion is a private matter. But, Lenin adds, this tactic proved capable of giving rise to a new distortion of Marxism, this time in the opposite direction to the anarchist slogan — towards opportunism. The opportunists began to interpret this point of the programme to mean that religion is a private matter for us as a party. Engels, seeing such a misinterpretation, emphasised that social democracy regards religion as a private matter in relation to the state, but not in relation to the proletarian party, i.e. not in the sense that religion is acceptable from the point of view of Marxism. The loudmouths from the anarchist camp have repeatedly criticised the Marxists for their alleged half-heartedness and inconsistency on the religious question. But this merely means that they have fundamentally failed to grasp the tactics of Marxism regarding religion, tactics that strictly follow from dialectical materialism. They attributed to Marxism a 'moderate' stance towards religion for tactical reasons, in the sense of a desire not to 'scare off' the still religiously-minded masses from socialism. But this question appears to Marxists to be of a deeper nature.

Here is what Lenin replies to the anarchists: 'Marxism is materialism. As such, it is just as ruthlessly hostile to religion as the materialism of the 18th-century Encyclopédistes or the materialism of Feuerbach. That is beyond doubt. But the dialectical materialism of Marx and Engels goes further

encyclopaedists and Feuerbach, by applying materialist philosophy to the field of history, to the field of the social sciences. We must fight against religion. This is the ABC of all materialism and, consequently, of Marxism. But... Marxism goes further. It says: one must know how to fight against religion, and to do this one must explain, in materialist terms, the source of faith and religion among the masses. The struggle against religion must not be confined to abstract ideological preaching; it must not be reduced to such preaching; this struggle must be linked to the concrete practice of the class movement aimed at eliminating the social roots of religion. Why does religion persist among the backward strata of the urban proletariat, the broad strata of the semi-proletariat, and also among the mass of the peasantry? Because of the ignorance of the people, replies the bourgeois progressive, the radical, or the bourgeois materialist. Consequently, down with religion, long live atheism; the propagation of atheistic views is our main task. The Marxist says: that is not true. Such a view is superficial, bourgeois-limited culturalism. Such a view does not deep enough; it explains the roots of religion not materialistically but idealistically. In modern capitalist countries, these roots are chiefly social. The social oppression of the working masses, their apparent utter helplessness in the face of the blind forces of capitalism—which inflicts a thousand times more of the most terrible suffering and the most savage torment upon ordinary working people every day and every hour than any extraordinary events such as wars, earthquakes, and so on— — this is the deepest modern root of religion. *'Fear created the gods.'* *Fear of the blind force of capital, which is blind because it cannot be foreseen by the masses of the people — which at every turn in the life of the proletarian and the small trader threatens to bring upon him, and does bring, the 'sudden', 'unexpected', 'accidental' ruin, ruin, becoming a beggar, a pauper, a prostitute, starvation — this is the root of modern religion which the materialist must bear in mind first and foremost, if he does not wish to remain a materialist of the preparatory class. No educational booklet will eradicate religion from the masses, crushed by the capitalist grind and dependent on the blind, destructive forces of capitalism, until these masses themselves do not learn to fight in a united,*

in an organised, systematic and conscious manner, to fight against this root of religion, against the rule of capital in all its forms' (Vol. 11, Part 1, pp. 253–254).

I have quoted this somewhat lengthy passage because there is scarcely a page in the entire body of Marxist literature that gets to the very roots of religion in modern society better, more accurately or more concisely. However, one must not think that Lenin is against educational books on religion. He emphasises that it is absolutely necessary to publish such books, but one must not forget that the atheistic propaganda of the party of the revolutionary proletariat must be subordinated to its main task—the class struggle of the proletariat against capital. The communist places economic and political struggle at the forefront. Lenin's solution to the proletariat's task regarding the struggle against religion can serve as a model of Marxist dialectics. *The contradiction which an anarchist or liberal sees in this solution is 'the living contradiction of living life, i.e. a dialectical, not a verbal, not a fictitious contradiction'* (Lenin). A non-dialectician reasons as follows: the propaganda of atheism is one thing, and the class struggle is another. He fails to see that these two tasks are most closely linked, that a successful struggle against religion depends on the success of the economic and political struggle, and that their connection is not one of equality but of the subordination of anti-religious propaganda to the political and economic struggle.

Lenin illustrates his point with an excellent example. Let us suppose, he says, that a strike is taking place. The vanguard of conscious workers naturally consists of atheists. But there is also another layer of workers who are still backward, tied to the old ways, who believe in God, attend church, or are directly under the influence of a priest. For a communist, it is essential to prioritise the success of the strike. Here, the use of atheistic propaganda may prove harmful from the point of view of the progress of the class struggle. The class struggle, in the form of a strike, can unite class-conscious workers and Christian socialist workers, and it would be a crime to prevent the creation of a unifying platform based on the class struggle. This would only play into the hands of the priests, who are only too eager to replace the division of workers by their participation in the strike with a division by faith. The class struggle, and the solidarity in the strike between backward workers and

the class-conscious will lead Christian workers to atheism a hundred times more quickly than mere atheistic preaching. This is where Lenin sees the concrete solution to the question of anti-religious propaganda in as a counterweight to the abstract solution of his.

'A Marxist must find the boundary between anarchism and opportunism.' This boundary is, of course, variable; it must always be sought in a specific context, but it exists.

Alongside this, Lenin raises an interesting question. There are people who call themselves socialists and who declare: socialism is my religion. Can such a person be admitted to the party? That such a conviction constitutes a departure from Marxism is beyond doubt. But one must distinguish between who is saying this and the state of the labour movement. It is one thing if an agitator or a responsible official says this in order to be more understandable to the uneducated masses. It is quite another matter if they are preaching 'the worship of God'. The first case represents a method of pedagogical influence, and there are instances when such an approach to the audience is appropriate. But under no circumstances is it permissible to admit into the party people who sincerely believe that socialism is a religion.

'The proposition "socialism is a religion" is, for some, a form of transition from religion to socialism; for others, from socialism to religion.' This is how Lenin characterised these two types of attitude towards religion.

Lenin points to the opportunistic behaviour of the Social Democrats on the question of religion, who sacrifice the fundamental interests of the class struggle for the sake of short-term gains. They proclaim religion to be a private matter, without specifying that religion is a private matter only in relation to the state, and certainly not in relation to the workers' party. He also points to the specific task facing Russian socialists in the struggle against religion. Among European Social Democrats, there is a growing indifference to the question of religion. This indifference stemmed in part from the fact that the struggle against religion is a historical task of the revolutionary bourgeoisie, which it largely fulfilled during the era of its own revolutions. In Russia, however, due to the belated nature of the bourgeois-democratic revolution, this task can be resolved only by the proletariat. Owing to objective conditions, the proletariat in Russia became the leader and of the bourgeois-democratic revolution.

Consequently, the party was compelled to sweep away the remnants of the Middle Ages, which the bourgeoisie was unable and unwilling to remove. Anti-religious propaganda was one of these tasks. Russian opportunists adopted from the German Social Democrats an indifference to the question of religion. This is a hundred times worse opportunism, because this indifference took place in a country where the burden of carrying out the bourgeois revolution fell on the shoulders of the proletariat.

Lenin pays particular attention to the class role of the church and the clergy. The latter, he writes, is an open accomplice of reactionary governments and the bourgeoisie in the struggle against the working class. On the eve of turbulent events, the oppressed masses are brought to maturity more rapidly. This will be felt just as much in their turning away from the church and religion. Lenin develops extremely valuable thoughts on this issue in connection with the Holy Synod's budget in the State Duma (1909). The majority of the Third Duma clergy defended their medieval privileges quite openly; they protested against secularisation 'as an encroachment on private property and on the rights of the Church and its assets'. Liberals often claimed that there was no ground in Russia for militant clericalism, for its struggle against the state. This is entirely incorrect, writes Lenin. — Clericalism existed in a covert form. The princes of the church were not forced to defend their privileges in the face of an all-powerful bureaucracy and police. Therefore, they had no need for any special organisation. But after the 1905 revolution, when the proletariat and the revolutionary section of the bourgeoisie went on the offensive, the church changed its tactics. Before the revolution, it did not act openly, not because it was weak, but because it was strong; not because it was incapable of organisation and political struggle, but because there was as yet no need for such organisation. But when the revolution broke out, the clergy organised themselves. They organised the Black Hundreds and, together with the nobility, unleashed reckless demagoguery; in other words, they became militant clericalism.

But in the Third Duma there were some representatives of the bourgeoisie (from the Octobrists and Cadets) who proposed a more cunning church policy than that defended by the clericals and the outright Black Hundreds. They understood that the religiousness of the people was in the interests of the bourgeoisie. Therefore, they

They spoke out in defence of certain church reforms of no real significance, in order to employ, alongside the stick, even more subtle means of bolstering the wavering religious life of the masses. 'What can replace the concept of sin?' cries the Octobrist Kapustin. 'What can replace the voice of conscience? Surely it cannot be replaced by the concept of class struggle and the rights of one class or another. This is a sad concept that has crept into our everyday lives.' He calls for measures capable of restoring the authority of the clergy. He wishes to strengthen the influence of religion on the masses, replacing certain overly crude and now obsolete methods with more subtle ones. A police-state religion, it seems, is no longer sufficient to deceive the masses; let us have a more cultured religion. In the name of this goal, he calls for parish self-government. The Cadet Karaulov spoke in the same vein, protesting against the alliance between the church and the Black Hundreds. Both parties are striving to 'renew' religion so that it may serve as a more effective opiate for the people. In these speeches one can see the full gulf separating the revolutionary past of the atheistic bourgeoisie of the 18th century from the bourgeoisie of our day. Lenin then refers to the speech by the Trudovik peasant Rozhkov. Lenin showed the gulf that lies between hypocritical, counter-revolutionary support religion

by the Cadets and the primitive religiosity of the peasant, *'in whom the conditions of his life engender—against his will and beyond his consciousness—a truly revolutionary resentment against extortion and a readiness for a decisive struggle against the Middle Ages'*. Rozhkov — *a representative of 'revolutionary bourgeois democracy, undeveloped but harbouring within itself vast and by no means exhausted reserves of revolutionary energy in the struggle against the landlords, the priests and autocracy'* (Vol. 11, Part 1, pp. 260–268).

Lenin wages war against religion with all the fury of his passionate soul, tirelessly emphasising that religion is 'a product reflecting economic oppression'.

During the years of fierce reaction following the first Russian Revolution, many progressive intellectuals drew closer together on the basis of a special preaching of a religion they had invented. Lenin passionately speaks out against all 'God-seekers' and 'God-builders'. Gorky found himself among the latter. Lenin writes to him as follows: *'Precisely because any*

The religious idea, any notion of any little god, any flirtation even with a little god, is an unspeakable abomination, one which is met with particular tolerance (and in part even goodwill) by the democratic bourgeoisie; precisely for this reason, it is the most dangerous abomination, the most vile 'contagion' (Letter 32. Lenin Collected Works, Vol. 1, p. 153). Any religion is a consolation for oneself, for one's own powerlessness; it is self-contemplation, passivity, when what is needed is a resolute struggle against oppression. Gorky defines God as 'a complex of ideas that awaken and organise social feelings'. 'This,' Lenin writes to Gorky, 'is Bogdanov's idealism, a blurring of the material origin of ideas... born of man's dull oppression by external nature and class oppression... The idea of God has always lulled and dulled 'social feelings', substituting the living with the dead, always being an idea of slavery (the worst, hopeless slavery). Never has the idea of God 'linked the individual to society' (as Gorky believes. — A.V.), but has always bound the oppressed classes by faith in the divinity of their oppressors' (ibid., letter 34, pp. 158–159). Every religion is a justification for reaction, whether it be the religion of the official church or the religion of those who seek and construct God. Gorky refers to folk religion. And Lenin replies: 'The folk conception of God and the divine is "folk" stupidity, narrow-mindedness, and ignorance, exactly the same as the "folk conception" of the tsar, of the wood-goblin, of dragging women by the hair. How you can call the "folk conception" of God "democratic", I absolutely do not understand' (ibid.).

In 1922, Lenin wrote an article in **Under the Banner of Marxism** on the significance of militant materialism. In this article, he insists on the need to translate the militant atheistic literature of the 18th century and to keep a close watch on all relevant literature in all languages, that is, on anti-religious literature. He points out that, despite the fact that certain views of the 18th-century Enlightenment thinkers are somewhat outdated, this literature is nevertheless extremely valuable to us, for, — writes Lenin — it would be a mistake to think that 'the masses, condemned by the whole of modern society to darkness, ignorance and prejudice, can emerge from this darkness only by following a straight path of purely Marxist enlightenment'. The errors of the Enlightenment thinkers can be corrected in specific footnotes, whereas *'the lively, spirited, talented,*

witty and openly attacking the prevailing clergy, of the 18th century will, on the whole, prove a thousand times more suitable for rousing people from their religious slumber than the dull, dry retellings of Marxism, almost devoid of skilfully selected facts, which predominate in our literature."

It is extremely interesting what Lenin writes about Tolstoy. He analyses the role of religion in Tolstoy's work in connection with his attitude towards the peasant question. *'Tolstoy's ideas,'* writes Lenin, *'are a mirror of the weakness and shortcomings of our peasant uprising, a reflection of the spinelessness of the patriarchal village and of the callous cowardice of the 'peasant farmer' (Vol. 11, Part 1, p. 117).* Lenin highly values Tolstoy as an artist, and also values his bold criticism, which exposes government violence and the vileness of the administration, and paints a harrowing picture of the suffering of the masses. But he attacks Tolstoy as a religious preacher. Such preaching is, in his eyes, all the more repugnant because the preacher is not an official figure but a devout believer who, through his sincere conviction, leads people far more astray than priest-bureaucrats. He ridicules Tolstoy as a prophet who has discovered new recipes for the salvation of humanity, as well as his followers, the 'Tolstoyans'.

'Tolstoy is great,' writes Lenin, *'as the voice of those ideas and sentiments that had taken shape among millions of the Russian peasantry by the time the bourgeois revolution broke out in Russia. Tolstoy is original, for the totality of his views, harmful as a whole, expresses precisely the peculiarities of our revolution (1905 – A.V.), as a peasant bourgeois revolution. From this point of view, the contradictions in Tolstoy's views are a true reflection of the contradictory conditions in which the historical activity of the peasantry was situated during our revolution.'*

The desire to destroy the landholding system, to clear the way for a community of free small peasants, characterises the historical activity of the peasantry in our revolution, and 'there is no doubt that the ideological content of Tolstoy's writings corresponds far more to this peasant aspiration, than to abstract

'Christian anarchism', as his 'system'

of his views. The peasantry hated the landlord and the official, but could not find a way to free themselves from them.

'The bulk of the peasantry,' says Lenin, *'wept and prayed, railed and dreamt, wrote petitions and sent "petitioners", quite in the spirit of Leo Nikolayevich Tolstoy.'* Lenin attributes to this circumstance the fact that the peasantry refrained from politics in the spirit of Tolstoy.

'Behind the conscious proletariat,' he writes, *'went only a minority of the people, whilst the majority fell prey to unprincipled, servile, bourgeois intellectuals who, under the name of Cadets... bargained, made compromises, and promised to reconcile, until they were driven out by the kick of a soldier's boot' (ibid.).*

VII.

CONCLUSION

In conclusion, it is worth summarising the new elements with which Lenin enriched Marxist philosophy.

1. A strict distinction between the two fundamental currents of philosophy: materialism and idealism. This distinction had already been drawn by Engels in his 'L. Feuerbach'. But after Engels' death, within the Second International, this strict distinction was lost in the same way that Marx's doctrine of the dictatorship of the proletariat was lost or obscured. Lenin's immense merit lies in the fact that he once again placed this central problem at the forefront when assessing any philosophical thought. He most emphatically stresses the necessity of distinguishing between these two fundamental schools of thought. 'Things in themselves' do indeed exist and are fully knowable to us in their existence, in their qualities and in their actual relations. Our sensory perceptions bear a resemblance to the forms of the real, i.e. the objectively real existence

of objects. Consequently, the laws of thought have not a subjective but an objective significance. They reflect the actual existence of the material world. The categories of the theory of knowledge (space and time, motion, causal connection, etc.) are objective. The correct dialectical relationship between relative and absolute truth is particularly strongly emphasised by Lenin because the errors of certain natural scientists (Machists), and their departure from materialism, were partly caused precisely by their inability to link relative and absolute truth. They failed to understand that absolute truth is composed of the sum of relative truths. By rejecting absolute truth and acknowledging only relative truth, they got bogged down in relativism and agnosticism. By rejecting mechanical materialism (which was justified), they simultaneously rejected all forms of materialism, because they knew nothing about dialectical materialism.

2. No one understood more deeply the causes of the origin of philosophical schools than Lenin. He tirelessly points to the close connection that links idealism with

the interests of the bourgeoisie. Idealism springs from the same source as religion, and both are faithful servants and powerful weapons for consolidating the power of the oppressors over the oppressed. Idealism is a reactionary philosophical current, regardless of the form or variety in which it appears. Idealism is a refined, sophisticated form of clericalism. Just as religion is the best means of duping the ignorant masses, who are uneducated and crushed by centuries of class oppression, so idealism is the best means of oppressing the minds of the 'middle' classes, primarily the petty-bourgeois intelligentsia. The idealist ideology with which the bourgeoisie fills the heads of the servile intelligentsia will guarantee the class reliability and loyalty of this intelligentsia to the bourgeoisie. Just as religion is the opium of the people, so idealism is a narcotic maintained by the bourgeoisie to befuddle the minds of the middle strata of the population, to secure their ideological support.

Materialism, for its part, is based on the natural sciences and on an unvarnished, sober analysis of social processes. Just as idealism is an ally of religion, so materialism is an ally and true friend of natural science. Lenin is absolutely right in pointing out this connection; at the same time, he emphasises that not only does materialism need natural science as a foundation, but natural scientists can find truly faithful allies only in dialectical materialists. Natural science will only be finally freed from idealist baggage, from all manner of idealist misinterpretation of its findings to serve the consolidation of the bourgeoisie's class rule, when it consciously unites with dialectical materialism.

3. But apart from this, Lenin contributed a whole series of invaluable studies to the treasure trove of Marxist philosophy. The most significant issues further developed by Lenin include the concreteness of truth, the relationship between absolute and relative truth, the clarification of the relationship between the thing-in-itself and the phenomenon, the theory of reflection, the role of revolutionary theory in guiding action in the proletariat's struggle for its liberation, the understanding of the laws of dialectics not as dead formulas but as guides in the analysis of the infinite variety of phenomena, the distinctive nature

the state form of the proletariat: its dictatorship; the strategy and tactics of the proletariat in the era of revolution; the economic and political anatomy of imperialism; the inevitable transformation of imperialist wars into civil war, on the one hand, and into wars of liberation waged by enslaved colonial peoples against imperialism, on the other. The sharp distinction between bourgeois ‘democracy’ and the democracy of the proletariat, the role of religion as a brake on the class struggle, the clarification of the proletariat’s methods of struggle against religion, the ways in which the proletariat can assimilate bourgeois culture, the preconditions for a cultural revolution existing in our society, — these are but the most important issues in which Lenin proved himself an incomparable master of Marxist dialectics. It is the duty of every communist, every conscious proletarian, to study his legacy. Only by educating themselves in this doctrine will they be able to contribute to the building of socialism and thus do their part, both in practice and in theory, to fulfil Lenin’s legacy.

A SHORT GLOSSARY

A.

Avenarius — philosopher, one of the founders of empirio-criticism (1843–1896). His main works:

‘The World’s Thinking According to the Principle of Least Effort’ and

‘The Philosophy of Pure Experience’. He was a professor of philosophy in Zurich.

Agnosticism — a doctrine according to which man is not capable of, and will never be capable of, knowing the world as it is in itself. Literally: a means ‘not’, gnosis means ‘knowledge’.

Alizarin — one of the products of the decomposition of anthracene.

A dye.

Adequate — precisely corresponding. Knowledge that accurately reflects the object is called adequate.

Analysis — the breaking down of a complex object or concept into its constituent parts.

Apollonius — a Greek mathematician of the Alexandrian period, author of the theory of the circle, ellipse, hyperbola and parabola.

A priori — this is the term used by idealists to refer to the basic categories of knowledge. According to this doctrine, our knowledge arises not through experience or exclusively from experience, but through the activity of our mind, which does not abstract the fundamental laws from the world, but creates the world using its inherent a priori categories.

Aristotle — a Greek philosopher (384–322 BC), the greatest thinker of antiquity, the first to systematise the natural sciences, and the author of world-renowned philosophical works on logic (The Organon) and metaphysics. He also wrote works on economics, politics, constitutional theory and a number of aesthetic essays.

Archimedes — the greatest mechanical engineer of antiquity (born c. 287 BC), author of major treatises on geometry, mechanics and hydrostatics, and inventor of a number of so-called simple machines.

B.

**Berkeley was an English philosopher (1684–1753). An idealist, he was the author of * * and the famous * *, a work * *
*Treatise on the principles**

of human cognition'. Lenin discusses him in the first chapter of his 'Materialism and Empirio-Criticism', pointing to him as one of the sources of empirio-criticism.

Biology is the study of organisms. Biology is a collective term for a large number of separate disciplines.

V.

A thing-in-itself is a thing as it exists in itself, independently of our consciousness. Kant denied that it could be known. Marxism refuted Kant's view.

G.

Hegel — the greatest German philosopher (1770–1831), a philosopher of absolute idealism, the culmination of classical German idealism. He provided an exhaustive account of the laws of dialectics, but presented them in an idealist interpretation. Marx and Engels set his dialectics on a sound footing, that is, transformed it into materialist dialectics. He wrote

18 volumes of philosophical works; 'Phenomenology of Spirit', 'The Science of Logic', 'Encyclopaedia of the Philosophical Sciences', 'History of Philosophy, Philosophy of History' — the most important of these. Hegel exerted an enormous influence on subsequent generations of thinkers.

Gelerter — a learned man, a scholar. Used by Lenin in an ironic sense — in the sense of bookish wisdom.

Geometry — the study of space.

Epistemology — the theory of knowledge. It investigates the laws of thought and questions concerning the relationship between the external world and knowledge.

Hobbes — an English philosopher (1588–1679), a materialist, author of famous works: 'On Man', 'On the Body', 'Leviathan'. He is the author of a theory of the state. According to his doctrine, the state arose through a contract: a contract by which the people renounced all their rights in favour of the sovereign, in order to rid themselves of the perpetual war of all against all.

Heron — a Greek engineer (c. 100 BCE), author of treatises on mechanics.

D.

Charles Darwin (1809–1882) — an English biologist, the founder of the theory of evolution in biology. He explained the origin and change of species through natural selection. Individuals of the animal (and plant) kingdoms struggle for life. Those individuals that possess characteristics better suited to the struggle for existence than other individuals survive, develop and pass on their traits to their offspring.

Democritus — an ancient Greek philosopher; lived around 400 BC. The founder of atomic theory. A great materialist.

Dialectics — the doctrine of the general laws of motion and development in the realms of nature, society and thought.

Dialectical materialism — the philosophy of Marxism, the methodology of the natural sciences and the social sciences.

Ditzgen Joseph — German worker, materialist philosopher (1828–1888), self-taught. A dialectical materialist, though he sometimes became confused due to a lack of knowledge. His principal work: ‘The Essence of Man’s Mental Labour’. Marx and Engels held Ditzgen in high regard, despite certain errors in his interpretation of the philosophical tenets of dialectical materialism. Lenin also held him in high regard.

Dühring — a German philosopher, born in 1833, a petty-bourgeois socialist; in his time he had some influence on the German labour movement, but is now known only for Engels’s critique of him in his ‘Anti-Dühring’.

Z.

Zeno — a Greek philosopher (c. 490 BC), belonged to the so-called Eleatic school. He denied the reality of motion and put forward a number of formal-logical arguments against it.

I.

Idealism — a philosophical school of thought that denies the existence of the external world or its knowability and

which asserts that the spirit is the only truly existing principle, whilst matter is merely its manifestation, existing in the mind of the spirit.

A hieroglyph is a sign or symbol. Proponents of the hieroglyphic theory deny that our sensations and perceptions are reflections, faithful copies of reality.

Inertia — the resistance of bodies to change in their state, caused by external forces.

The July Monarchy — the regime of Louis-Philippe, the French king, who succeeded the Bourbon dynasty (1830–1848), was overthrown by the revolution of 1848.

K.

Category — a fundamental concept. In logic, categories refer to the concepts of matter, space, time, number, causality, universality, unity, etc.

Kantianism — the philosophy of Kant, the German philosopher (1724–1804), the founder of critical or transcendental idealism, which asserts that the thing-in-itself is unknowable and that knowable things are phenomena created by means of a priori categories: forms of intuition (space and time) and concepts of the understanding (unity, plurality, position, negation, substance, causality, etc.).

L.

Leibniz — a German philosopher (1646–1716), an idealist, the founder of the theory of monads and the calculus of infinitesimals alongside Newton, with whom he disputed the priority of the discovery of higher mathematics.

Locke — an English philosopher (1632–1704), a sensualist who put forward the famous theory: there is nothing in the mind that was not previously in the senses. Author of the philosophical work

‘An Essay Concerning Human Understanding’. An ideologue of the English bourgeoisie during the era of the Glorious Revolution (1688).

M.

Mathematics — the study of quantities, constants and variables, and their laws.

Materialism — a philosophical school of thought. Materialism and idealism represent the two fundamental and only consistent schools of thought in the field of philosophy. Materialism proceeds from the premise that nature, matter, constitutes the primary foundation and that the mind is a secondary, derivative phenomenon, a function of specially organised matter.

Methodology is the study of methods. A method refers to a way of investigating reality, its logical means, and also a manner of presentation.

Mah—an Austrian physicist and philosopher (1836–1916). Together with Avenarius, he was a founder of empirio-criticism. His main works include: 'Mechanics in its Development', 'The Theory of Heat', 'Analysis of Sensations', and 'Knowledge and Error'.

Set — a collection of elements that can be distinguished from one another. The word 'collection' may be used instead of 'set'.

Model — a material system created mentally or physically to represent actual material processes. A term frequently used in physics and chemistry.

Monism — a philosophy based on a single principle. Monism can be materialism (if this principle is matter) or idealism (if the principle is spirit).

N.

Continuity — means movement occurring without interruption.

Newton — an English physicist (1643–1727), one of the greatest figures in the natural sciences. The founder of the theory of universal gravitation, according to which two bodies attract each other with a force proportional to the product of their masses and inversely proportional to the square of the distance between them. Together with Leibniz, he was the founder of the calculus of infinitesimals. His principal work is *Mathematical Principles of Natural Philosophy* (1687).

O.

Objectivity — denotes the existence, relation and also the quality of existing things, regardless of whether anyone perceives them or not.

Definition — a judgement expressing the essential character of the phenomenon being defined. It may be formal, when the definition is given by specifying the nearest genus of the defined object and the species that specifically characterises it in distinction from other species of that genus. It is concrete when, with its help, one can create or mentally reconstruct the defined object.

P.

Plato — an ancient Greek philosopher (427–347 BC), a famous idealist and the founder of the doctrine of transcendent ideas, which constitute the sole reality.

A concept is a representation expressing a general property or relation of many objects.

The principle of sufficient reason — one of the principles of logic, asserting that, with the exception of certain so-called fundamental truths, all others logically follow from others, ultimately from the fundamental ones, which are called axioms, principles, etc., depending on the science in question. All truths, including axioms and principles, derive from experience.

The principle of causality is the principle according to which every event is the cause of subsequent events and the consequence of preceding ones.

Positivism — a philosophy based on direct empirical data and which accepts nothing beyond our sensory data, i.e. which does not accept the objective existence of matter. A form of of idealism. The main representative of positivism is Comte, a French philosopher.

Discontinuity — means a process occurring by means of interruptions or leaps.

Poincaré, G. — a French physicist and philosopher, a positivist, author of philosophical works, the best known of which is 'Science and Hypothesis'.

R.

Realism — a school of thought of objectivity, i.e. the existence of principle as being. Realism can be an idealistic or a materialistic doctrine.

Relativism — the doctrine of the relativity of our knowledge in the sense that there is no absolute truth.

Marxist revisionism. This is the term used to describe attempts to revise Marx's doctrine. There are various forms of revisionism. One school advocated moving back from Marx to Kant (Bernstein, Forlander, etc.), another to Mach (Russian revisionists: Bogdanov, Bazarov, Yushkevich, etc.)

S.

Sensualism is a philosophical doctrine according to which the basis of knowledge consists of sensory data, sensations and perceptions. Sensualism in itself is not materialism. It becomes materialism only if our sensations are recognised as true reflections of reality. Sensualism leads to idealism, since this is denied. (See Berkeley and Hume.)

Synthesis — the unification of different elements as constituent parts of a process. This unification is qualitatively different from its constituent parts.

Scepticism — the doctrine of the doubtfulness of the existence of the world independent of our consciousness and of the doubtfulness of the reliability of knowledge. (See Hume.)

Spinoza — a major philosopher (1632–1677), a materialist. For Spinoza, there is only one Substance with two attributes: extension and thought. His principal work is *Ethics*.

Statics is a branch of mechanics. It is the study of the equilibrium of forces.

Substance — a term denoting matter (in materialist systems). Idealist philosophy regards spirit as substance.

A judgement is a statement consisting of three parts: subject, predicate and copula (is).

Scholasticism — medieval philosophy based on Aristotle's doctrine concerning the real existence or non-existence of universal concepts and their objects. (Scholasticism refers to various schools.)

T.

Theorem — a scientific proposition derived from other propositions.

Theory — a coherent doctrine comprising a logically sound system relating to a specific field of phenomena or, as a general theory, concerning all processes.

Quantum theory — a doctrine according to which not only does matter consist of ultimate, indivisible particles, but energy and physical action also consist of a specific quantity of the smallest units of energy and action.

Electron theory — a doctrine according to which the atom consists of electrons — negatively charged particles orbiting a positively charged nucleus.

Transcendental philosophy — Kant's philosophy. The transcendental doctrine implies that things-in-themselves are unknowable, that there is no transition from phenomena to things-in-themselves. The word 'transcensus' means transition.

Trajectory — the path travelled by a moving body.

U.

Inference — a logical technique by which one scientific proposition follows from others (the so-called premises).

F.

Ludwig Feuerbach — a leading materialist, a precursor to Marx and Engels (1804–1872). He was initially a Hegelian. In the early 1840s (1843–1845), Marx and Engels were followers of Feuerbach, but later moved beyond him.

Fideism — 'Fideism is a doctrine that substitutes faith for knowledge or, in general, attaches great importance to faith' (Lenin).

Formal logic — the doctrine of the so-called formal laws of thought, which regard phenomena not as processes or as the results of processes, but as ready-made objects in a state of rest.

Function — in mathematics, a function is an expression that maps one set of numbers to another set of numbers, such that every number in the first set corresponds to a specific number in the second set. In a broader sense, a function refers to an action or activity; for example, thought is a function of matter organised in a particular way.

E.

Euclid — a Greek mathematician (c. 300 BC), author of the famous work **Elements**.

Evolution — development. This is the name given to Darwin's theory of the origin and development of organic species. In a more general sense, evolution refers to any process of development.

Eclecticism — a doctrine seeking to 'combine' materialism and idealism, to 'overcome' both extremes. A half-hearted, erroneous approach.

The Eleatics — an ancient philosophical school based on the view that the world is one and immutable, and that the transition from being to non-being, as well as the emergence and disappearance of things, are impossible. The Eleatics denied the reality of motion.

Empirio-criticism — a philosophical doctrine asserting that the real world does not exist without human consciousness and that its objects are merely complexes of human sensations. Its variants include empiriomonism and empiriosymbolism. Representatives of this school include Mach, Avenarius, and the Russian Machists.

Empiricism — a doctrine holding that only data from experience and sensations are reliable. Empiricism can be an idealistic doctrine, as it does not recognise a world beyond sensations.

Energy — a fundamental law of moving matter. In its simplest (mechanical) form, energy is numerically equal to half the product of a body's mass and the square of its velocity.

Energetics — a doctrine based on the premise that energy exists without a material carrier and that

nature consists of various forms of energy. A form of idealism. The leading proponent of the energy theory is the German chemist Ostwald.

J.

Hume — an English philosopher (1711–1776), a sensualist and sceptic. He taught scepticism regarding the existence of the external world. He drew on the sensualism of Locke and Berkeley. One of the sources of empirio-criticism, which Lenin fought against as a reactionary trend.