

abc

OF SOCIAL AND
POLITICAL
KNOWLEDGE

WHAT IS

Dialectical Materialism?

Y. KRAPIVIN

MEANING OF MATERIALISM

The philosophy of materialism is based on the principle that matter is the primary and independent reality, and that consciousness is a product of matter. It is a philosophical position that has been dominant in the West since the 17th century. The founders of materialism were the ancient Greek philosophers Democritus and Epicurus, and the 17th-century English philosopher Francis Bacon. In the 18th century, the French philosopher Denis Diderot and the German philosopher Immanuel Kant were also important figures in the development of materialism. In the 19th century, the German philosopher Ludwig Feuerbach and the English philosopher John Stuart Mill were also important figures in the development of materialism. In the 20th century, the Russian philosopher Leonid Kravitskiy was also an important figure in the development of materialism. The philosophy of materialism is a complex and multifaceted one, and it has been the subject of much debate and controversy. It is a philosophy that has shaped the course of Western thought and culture, and it continues to be a central part of the intellectual landscape of the modern world.

The philosophy of materialism is based on the principle that matter is the primary and independent reality, and that consciousness is a product of matter. It is a philosophical position that has been dominant in the West since the 17th century. The founders of materialism were the ancient Greek philosophers Democritus and Epicurus, and the 17th-century English philosopher Francis Bacon. In the 18th century, the French philosopher Denis Diderot and the German philosopher Immanuel Kant were also important figures in the development of materialism. In the 19th century, the German philosopher Ludwig Feuerbach and the English philosopher John Stuart Mill were also important figures in the development of materialism. In the 20th century, the Russian philosopher Leonid Kravitskiy was also an important figure in the development of materialism. The philosophy of materialism is a complex and multifaceted one, and it has been the subject of much debate and controversy. It is a philosophy that has shaped the course of Western thought and culture, and it continues to be a central part of the intellectual landscape of the modern world.

PROGRESS PUBLISHERS

ABC of Social and Political Knowledge

Vassily Krapivin

WHAT IS
DIALECTICAL
MATERIALISM?



Progress Publishers • Moscow

Translated from the Russian by *Galina Sdobnikova*

Editorial Board of the Series: *F. M. Volkov* (Chief Editor)
Ye. F. Gubsky (Deputy Chief Editor), *F. M. Burlatsky*,
V. V. Krapivin, *Yu. N. Popov*, *V. V. Sobolev*, *F. N. Yurlov*,
V. D. Zotov

АВС СОЦИАЛЬНО-ПОЛИТИЧЕСКИХ ЗНАНИЙ

В. Крапивин

ЧТО ТАКОЕ ДИАЛЕКТИЧЕСКИЙ МАТЕРИАЛИЗМ?

На английском языке

© Издательство «Прогресс», 1985

English translation © Progress Publishers 1985

Printed in the Union of Soviet Socialist Republics

К $\frac{0302020100-407}{014(01)-85}$ 15-85

Contents

Foreword	9
<i>Topic 1. PHILOSOPHY, ITS SUBJECT AND ROLE IN THE SOCIETY</i>	16
1. Philosophy as a Science	16
2. Basic Question of Philosophy	20
3. Concept of Method. Dialectics and Me- taphysics as Opposite Philosophical Me- thods	25
4. The Subject-Matter of Marxist-Leninist Philosophy	28
5. Partisan Nature of Philosophy	30
<i>Topic 2. THE HISTORY OF PHILOSOPHY AS A HISTORY OF STRUGGLE BE- TWEEN MATERIALISM AND IDEA- LISM</i>	35
1. The Origins of Materialism and Idealism, Their Constant Struggle	35

2. The Struggle Between Materialism and Idealism in the Slave-Holding Society . . .	38
3. The Struggle Between Materialism and Idealism in Medieval Philosophy . . .	49
4. Materialism in the Epoch of Ascendant Capitalism, and Its Struggle Against Religion and Idealism	61
5. Classical German Philosophy of the Late 18th and the First Half of the 19th Century	70
6. The Philosophy of the Russian Revolutionary Democrats of the 19th Century	75
<i>Topic 3. THE EMERGENCE OF THE MARXIST-LENINIST PHILOSOPHY AND THE MAIN STAGES OF ITS DEVELOPMENT</i>	<i>79</i>
1. Prerequisites for the Emergence of the Marxist Philosophy	79
2. The Essence of the Revolution in Philosophy Carried Out by Marx and Engels	88
3. The Creative Nature of the Marxist Philosophy	91
<i>Topic 4. MATTER AND THE FORMS OF ITS EXISTENCE</i>	<i>97</i>
1. What Is Matter?	97
2. Motion as the Mode of Existence of Matter	103

3. Space and Time as Forms of the Existence of Matter in Motion	107
4. The Material Unity of the World	111
<i>Topic 5. CONSCIOUSNESS, ITS ORIGIN AND ESSENCE</i>	<i>114</i>
1. Pre-Marxian Concepts of Consciousness	114
2. Consciousness as the Highest Form of Reflection	116
3. The Emergence of Consciousness	121
4. The Essence of Consciousness	127
5. The Unity of Consciousness and Language	131
<i>Topic 6. DIALECTICS AS A DOCTRINE OF UNIVERSAL CONNECTION AND DEVELOPMENT</i>	<i>136</i>
1. Materialist Dialectics as a Science	136
2. The Basic Principles of Dialectics	142
3. Materialist Dialectics as a Universal Method of Cognition and Transformation of Reality	150
<i>Topic 7. THE LAWS OF MATERIALIST DIALECTICS</i>	<i>160</i>
1. The Law of Unity and Struggle of Opposites	160
2. The Law of the Transformation of Quantity into Quality	171

3. The Law of Negation of the Negation	180
<i>Topic 8. THE CATEGORIES OF MATERIALIST DIALECTICS</i>	191
1. Individual, Specific and General (Universal)	192
2. Content and Form	196
3. Essence and Appearance	203
4. Cause and Effect	208
5. Necessity and Chance	213
6. Possibility and Reality	219
<i>Topic 9. THE THEORY OF KNOWLEDGE OF DIALECTICAL MATERIALISM</i>	224
1. Cognition as a Process of Reflection of Reality in Human Consciousness	224
2. The Dialectics of Cognition	226
3. The Marxist-Leninist Doctrine of Truth	234
4. The Role of Practice in Cognition	239
<i>Topic 10. THE METHODS OF SCIENTIFIC COGNITION</i>	242
1. The System of Methods of Scientific Cognition	242
2. Empirical Methods of Cognition	248

3. Theoretical Methods of Cognition	253
Conclusion	274
Philosophical Terms in Common Use	278

Foreword

Over the centuries, mankind's best minds tried to understand the Universe, to discover the levers behind natural and social processes and phenomena.

Mankind's road to a scientific understanding of the world was long and tortuous. In a bitter struggle against ignorance and obscurantism, against age-old religious dogmas and idealist views, it accumulated gleanings of real knowledge, moving ever closer to a truly scientific explanation of the surrounding world—nature, the society and knowledge—and of man's inner substance and place in the world. It was only just over a century ago that mankind's quest was crowned with success.

On the strength of a critical and creative analysis of past scientific and practical achievements, Karl Marx and Frederick Engels formulated an integral and consistently scientific doctrine, with the philosophy of dialectical and historical materialism as its theoretical basis. In assessing the historic importance of dialectical and historical materialism created by Marx and Engels, Lenin wrote: "Marx's philosophy is a consummate philosophical materialism which has provided mankind, and especially the working class, with powerful instruments of knowledge."¹

For the first time in the history of mankind's spiritual development, Marx and Engels turned philosophy into a science, into a highly effective method of the revolutionary transformation of the world in general and the society in particular. Hence the new social role of philosophy.

Without stopping at general conclusions, the founders of dialectical and historical materialism proved that under capitalism the scientific world outlook agreed with the interests and historical mission of the working class and all the other exploited masses, that only the latter were interested in a revolutionary transformation of the society and, consequently, in dialectico-materialist philosophy, which "is in its essence critical

¹ V. I. Lenin. *Collected Works*, Vol. 19, Progress Publishers, Moscow, 1977, p. 25.

and revolutionary".¹ That is why the Marxist philosophy came to regard the proletariat as its material weapon, and the proletariat adopted that philosophy as its spiritual weapon.

Creatively developed by V. I. Lenin, the Marxist philosophy for the first time in history became the world outlook of the working masses, a theoretical instrument in the revolutionary renovation of the world.

In our day, the revolutionary renovation of the world has become a truly global process. The majestic revolutionary transformations in social life, in science and technology, have influenced the social development of the peoples of all continents. Capitalism, the last exploitive system, is nearing its inevitable end. Socialism, envisioned by past generations as a society of social justice and equality, has now become a real force, and exerts an ever more decisive influence on the whole course of world development.

The victory of the Great October Socialist Revolution in Russia ushered in a new epoch in world history, the epoch of transition from capitalism to socialism and communism. In a fierce struggle against repeated imperialist interventions and internal counter-revolution, the Soviet working people, supported by the working people

¹ Karl Marx, *Capital*, Vol. I, Progress Publishers, Moscow, 1974, p. 29.

of the whole world, have built the first ever socialist state. As a result of the defeat of German fascism and Japanese militarism in the Second World War, a defeat in which the Soviet Union played the crucial role, and also the development of the working-class and national liberation movement, the working people scored immense successes. A world system of socialist countries has taken shape and has been growing stronger from year to year, giving a revolutionising impulse to the whole world. The working-class movement in the developed capitalist countries has been gathering momentum. The colonial system of capitalism has collapsed and dozens of independent states have arisen on its ruins. More and more of these states have been rejecting capitalism and opting for the socialist orientation. The newly independent countries within the non-aligned movement have been playing an ever greater role in world politics.

The successes of existing socialism and the peoples' movement for national liberation and social emancipation are indisputable. But they are attained in the course of fierce struggle against the forces of imperialism, neocolonialism and racism. Imperialism is obliged to retreat on many fronts, and in order to retain its positions it has been spawning hotbeds of military danger and seeking to revive the climate of the worst days of the cold war. To justify the growing reaction in

their own countries and gross interference in other countries' internal affairs, imperialist ideologues have been plugging the slogans of "human rights" in the socialist countries and struggle against "international terrorism". In the 1980s, capitalism has intensified its abuse of scientific and technical achievements for anti-humane purposes by developing the most sophisticated and obnoxious mass destruction weapons, and the problems relating to the environment and use of natural resources have been sharply aggravated.

The historical record shows that socialism is the main force in the struggle for peace and the security of peoples, capable of solving the fundamental problems facing mankind. It is only natural, therefore, that the ideas of scientific socialism have been spreading to every corner of the world. That is also why all the progressive forces and the multimillion masses have been trying to find out more about the ideology of scientific socialism, about Marxism-Leninism and its ideological and methodological basis: dialectical and historical materialism.

Dialectical materialism is the core of the philosophical system of Marxism-Leninism. It embodies the highest level of philosophical generalisation, embracing the universal laws and attributes of nature, the society and knowledge.

The question of materialist dialectics was essentially important at the end of the first half of the

19th century, when Marx and Engels formulated its basic principles. The debate on that question also took a sharp turn at the beginning of our century, when the idealists launched a frontal attack against materialist dialectics. "Does the lecturer acknowledge that the philosophy of Marxism is *dialectical materialism*?", Lenin wrote in 1908, when a lecture was being discussed in Geneva whose purpose was to present subjective idealism as the philosophy of Marxism.¹ The question of materialist dialectics has become pivotal to present-day science, the whole of socio-political practice in the course of mankind's transition from capitalism to socialism and communism, the development of the scientific and technical revolution and, finally, the ideological struggle in the world.

Present-day scientists, politicians and ideologists of all stripe and practitioners in virtually every area of modern life have been turning to materialist dialectics as the core of the scientific world view. Some regard it as a reliable method of cognition, which helps to understand present-day facts and events and to find correct answers to questions posed by science and practice. Others turn to materialist dialectics in order to undermine its foundations, to show that the doctrine and social ideals which rest on it and the

¹ V. I. Lenin, *Collected Works*, Vol. 14, 1977, p. 15.

ways and means of their realisation are unsound. Still others seek to use some propositions of materialist dialectics to prop up their own conceptions, give them a scientific appearance, and so make them more attractive.

This book is meant to give a brief summary of dialectical materialism, to explain the basic principles, laws and categories of materialist dialectics, and to show the ideological and methodological importance of a dialectico-materialist solution of the problems considered.

The author wishes to express his sincere gratitude to the personnel of the Inner-Party Education Department under the Central Committee of the Communist Party of Cuba, the Ideological and Political Education Department of the MPLA - Party of Labour, the Ideological Department of the FRELIMO Party, the management and teaching staff of the Dr. Agostinho Neto National Party School and the Central Party School of the FRELIMO Party for their assistance, constructive remarks and advice in the course of the work on this book.

Topic 1.

**PHILOSOPHY, ITS
SUBJECT AND ROLE
IN THE SOCIETY**

1. Philosophy as a Science

Philosophy is one of the most ancient sciences. It is similar to all the other sciences in that it studies the surrounding world, but differs from them in its approach to the study of the world: in its subject-matter and method.

Each particular science studies a concrete part or area of the surrounding world, some of its connections and relationships. Thus, the biological sciences study life and its laws, the peculiarities of the plant and animal world. The economic sciences deal with the development of the productive forces and relations of production, the forms of production and distribution. Pedagogics is a science of upbringing and education, and so on.

The main peculiarity of philosophy is that it has always sought to explain the surrounding world as a whole, its nature and condition.

Every individual has his own view of the surrounding world, and that view often consists of scraps of contradictory notions, whereas philosophy is not just a sum-total, but a system of views, ideas and notions about nature, man and his place in the world. That is, philosophy is a world outlook.

World outlook is the totality of principles, views and convictions which determine man's attitude to reality and to himself, the direction of the activity of every individual, social group, class, or the society as a whole. A scientific world outlook is a system of views of reality based on Marxism-Leninism and enabling the individual to adopt the right attitude to reality. The scientific world outlook molds the individual's knowledge into an integral and harmonious system and equips him with a scientific method of cognition and practical action in accordance with the requirements of social development. Dialectical and historical materialism is the basis of the scientific world outlook, of the scientific methodology. All the principles, propositions and demands of dialectical and historical materialism as a world outlook have a methodological dimension. Methodology is a philosophical doctrine on the methods of cognition and transformation of rea-

lity, an application of the principles of a world outlook to cognition, to creative spiritual activity in general, and to practice. The scientific methodology is the dialectico-materialist world outlook applied to the solution of fundamental practical and scientific problems. All the methodological principles and propositions of the Marxist-Leninist philosophy, for their part, are related to world outlook.

The philosophical world outlook has a theoretical nature. This means that the main propositions, ideas and notions are validated and backed up with facts, human experience, and data supplied by the particular sciences.

The scientific world outlook contrasts with the unscientific world outlook, which hinges either on a spontaneous awareness of the world (the so-called everyday world outlook), or on false conceptions (various idealist notions), or else on a religious or mythological view of the world (religious world outlook).

For progressive-minded people, it is always important to be able to unravel complicated problems of economic, political and spiritual life, to formulate their own stand and make a scientific analysis of the whole course of social development. Scientific notions should encompass not only the basic problems of the world outlook, but also daily human activity. Thus, various superstitions, preconceptions, and some obsolete

traditions are far from harmless. In definite circumstances, these could not only lead to a passive stand, lack of confidence in one's own strength, or reliance on blind chance, but could also engender distorted views and notions.

Only a world outlook based on a profound knowledge of the Marxist-Leninist theory can help a person to get his bearings in the constantly changing world. Lenin pointed out that in following the Marxist way we shall be moving ever closer to the objective truth, whereas any other way is bound to lead to lies and confusion.

The world outlook is the core of the individual's consciousness, and so plays the decisive role in the education process. It is the world outlook which determines the individual's spiritual complexion, political awareness and social activity. It is a prism through which the surrounding reality is perceived and refracted by the individual.

The world outlook integrates the individual's spiritual make-up and equips him with theoretical and methodological principles in his approach to reality, to the problems of politics, spiritual and daily life.

The formation of a world outlook has a profound influence on the individual's spiritual make-up. Thus, although the individual's political awareness and social activity depend on his social status and the course of events, these come

to rest on a solid basis only when he gains command of the scientific world outlook, for only such an outlook gives him a knowledge of the ultimate goals and ideals of social struggle, its ways and methods.

The scientific world outlook is based, first, on the materialist answer to the basic question of philosophy and, second, on the dialectical method. It is always materialist and dialectical.

2. Basic Question of Philosophy

A careful examination of various objects, processes and phenomena in the surrounding world shows that all of them are either material or ideal (spiritual). Material are those which exist objectively, that is, outside and independently of human consciousness (like the Universe, the Earth, various biological, physical, social phenomena, etc.), while those which exist in man's consciousness and are connected with his psychic activity (thoughts, feelings, emotions, etc.) are ideal, or spiritual.

There is no object, process or phenomenon in the world which is neither material nor ideal, that is, which is distinct both from the material and the ideal. The material and the ideal (spiritual) are different realities.

But in spite of the difference between them, there is a definite connection, a definite relationship between these realities. The question of the essence of that connection, of the relation between matter and consciousness, the material and the ideal, is the basic question of philosophy. All other philosophical problems are solved depending on the answer to that question.

The basic question of philosophy has two sides, or aspects. First, it is a question about the essential nature of the world, about what is primary – matter or consciousness – and whether it is matter that engenders consciousness or vice versa. Second, it is a question of whether the world is cognisable, of whether the human mind can comprehend the surrounding world and discover its development laws.

Let us consider the first aspect of the basic question of philosophy.

For many centuries, thinkers have been trying to understand the essential nature of the world, formulating numerous theories and setting up diverse schools, which have always fought bitterly among themselves. But in spite of all the distinctions among them, they basically form two big camps: materialist and idealist.

Philosophers who believe that matter (nature) is primary, while consciousness is secondary and depends on material being, form the camp of materialists.

From their standpoint, matter is eternal. It was never created by anyone, and there are no supernatural, divine forces in the world. As for consciousness, it is a product of the historical development of matter. It emerges and develops with the emergence of man.

Philosophers who believe that consciousness, spiritual life is primary, form the idealist camp. From their standpoint, consciousness exists independently of matter, "creates" the material world and controls it. As to how consciousness "creates" the world, the idealists differ in their opinion. Subjective idealists believe that the world is "created" by the consciousness of the individual, the subject, while objective idealists believe that the world is "created" by some kind of objective consciousness, by spiritual power existing outside the world and man himself.

So, depending on the answer to the first aspect of the basic question of philosophy, all philosophers are divided into two camps: materialists and idealists. There has always been an irreconcilable struggle between them on all the questions and problems of philosophy. Any attempt to avoid answering the basic question of philosophy is bound to fail, just as any attempt to rise above materialism and idealism or to reconcile them. Materialism gives a correct scientific explanation of nature, of the surrounding world, and idealism gives a false and unscientific explanation. That is

why any such attempt, Lenin wrote, "is a false and despicable evasion".¹

Materialism has always been the advanced, scientific world outlook. It presents a correct picture of the world, showing the world as it really is, and the society's progressive classes have used it in the interests of mankind's progress, of economic, scientific and cultural development.

Idealism has always been used by the society's reactionary forces. It still serves the exploiters as an instrument for the spiritual enslavement of the working people, as a means of justifying and strengthening their own rule.

For centuries, religion and idealism were also supported by the colonialists, who needed them for the spiritual enslavement and confusion of the masses. The winning of national independence, the development of the struggle for national liberation into a struggle for social emancipation, the fight by the society's vanguard for progressive and democratic transformations, for stronger independence, and especially for a socialist orientation open up real opportunities for the formation of a free, scientific, materialist world outlook among the masses.

Philosophers also fall apart into two opposite camps in answering the second aspect of the basic question of philosophy. Consistent materialists

¹ V. I. Lenin, *Collected Works*, Vol. 29, 1965, p. 505.

argue – and substantiate their argument – that the world is cognisable. They believe that the human mind can comprehend the essence of objects, processes and phenomena in the surrounding world. Mankind's achievements in the practical transformation of the world show best of all that it is gaining a correct knowledge of the world and making use of that knowledge.

Many metaphysically-minded materialists and idealists deny that the world is knowable or believe that knowledge is limited. These are called agnostics.* Other idealists do not deny that the world is knowable, but that is no more than lip service. Instead of trying to comprehend the surrounding world, subjective idealists orient towards a cognition of one's own thoughts and feelings, and objective idealists, towards a cognition of a nonexistent supernatural "world spirit", a mystical "absolute idea", and so on. The whole of present-day bourgeois philosophy is to some extent agnostic. Agnosticism is a weapon in the hands of those who defend the exploitative society, for if the world is unknowable, there is no point in trying to discover the laws of its development. And ignorance of these laws obstructs the practical revolutionary transformation of the world, so playing into the hands of the exploiter classes.

* From Greek *agnostos*: unknowable.

3. Concept of Method. Dialectics and Metaphysics as Opposite Philosophical Methods

Alongside the basic question of philosophy, scientists have always sought to answer another question: what is happening to the world? Has it always been the same as today or did it somehow emerge and has been changing, renewing and developing? All the answers to that question ever given in history fall into two opposite groups: dialectical and metaphysical, and the two corresponding methods are known as dialectics and metaphysics.

What is method? In the course of cognition and practical activity, people set themselves definite goals and formulate various tasks. The ways of attaining these goals and fulfilling these tasks, the complex of principles and modes of theoretical research and practical activity constitute a method.

No scientific or practical problem can be solved without the use of a definite method. Method here is not just a package of ways and means which suit any contingency. The substance of the method largely depends on the nature of the objects or phenomena being considered, on their peculiar uniformities.

What distinguishes a philosophical method is

that it applies to all spheres of nature, the society and thought without exception, to universal problems, rather than to some particular problems or spheres of reality.

In explaining the world, the advocates of dialectics assume, first, that all objects, processes and phenomena are interrelated, that they interact and mutually condition each other; and second, that they are in constant motion and development. Nothing can exist in the world except in that universal interrelationship, in motion and development. They see development as the process and the result of an accumulation of quantitative changes and their transformation into qualitative ones, as the qualitative transformation of some objects and phenomena into others; as a destruction of the obsolete and moribund; and as an origination, rise and strengthening of the new. For dialecticians, the source of development is internal contradiction, a struggle between the opposite sides or tendencies intrinsic to every object and phenomenon. Dialectics maintains that the cause or source of the development of nature and the society lies within them, and are not introduced from outside.

The advocates of metaphysics, on the contrary, assume that, first, the world is essentially immutable, that nature never changes; and second, that objects and phenomena have no connections with each other, that is, exist in isolation. They

see change and development as a mere increase or decrease in that which already exists. The source of development for them lies either in an external collision of various objects, or in a supernatural, divine force.

Dialectics sees the world as it really is. In explaining development processes, their causes and forms, and in showing that the new will inevitably win out, dialectics serves the progressive revolutionary forces in their struggle against the obsolete order, for the society's progressive development.

Metaphysics, on the contrary, refuses to recognise the progressive nature of development and the inevitable victory of the new, serving the interests of the conservative and reactionary forces in the struggle against progress. It provides a theoretical basis for revisionism and dogmatism.

Daily life, science and social practice reaffirm the truth of dialectics and the need to use it as a scientific method of cognition and practice. The viability of dialectics is best demonstrated by present-day social development. The peoples' rise to national independence, implementation of the tasks of national development, deep-going changes in spiritual life, the stride forward by many peoples from age-old backwardness to modern forms of independent and progressive development are graphic examples in this respect.

4. The Subject-Matter of Marxist-Leninist Philosophy

Over the centuries, the subject-matter of philosophy as a science has been changing. At first, it embraced all knowledge about the world. As Engels put it, the ancient philosophers were also naturalists, specialists in the nascent particular sciences.

The gradual cognition of the world and its various fields gave rise to the special sciences: astronomy, mechanics, physics, chemistry, biology, and others. Simultaneously, philosophy came to stand apart from these, specifying its functions and place in the system of scientific knowledge. Up to the early 19th century, philosophy was seen as the “science of all sciences”, and had an acknowledged right to dictate its propositions and conclusions to other sciences. The age-old dispute over the subject-matter of philosophy, its place among the other sciences and role in the society was scientifically resolved by Marx and Engels, who created the philosophy of dialectical and historical materialism.

The founders of dialectical and historical materialism assumed that cognition of the surrounding world is the purpose both of philosophy and the other, particular sciences. Both philosophy and the particular, special sciences study one

and the same world. But there is a distinction in the object of their research. That distinction is due to the fact that there exist in the world both universal and specific laws which operate simultaneously within the very same phenomena and processes. Specific laws, which relate to separate fields of nature and the society, are studied by the particular, special sciences, while universal laws are the subject of the dialectico-materialist philosophy.

The Marxist-Leninist philosophy is the general theoretical basis of the scientific world outlook. It equips people with a knowledge of the laws of nature, the society and thought, which is necessary for the practical revolutionary transformation of the world. So, the Marxist-Leninist philosophy is a science which, on the basis of a materialist answer to the basic question of philosophy, brings out the most general, dialectical laws of the development of the material world, the ways of its cognition and revolutionary transformation.

One of the specific features of the Marxist-Leninist philosophy is its interconnection with the particular sciences and with social practice. On the one hand, it provides the particular sciences and social practice with a knowledge of the basic principles of existence and laws of development of the surrounding world. It guides concrete scientific research and men's practical activity along

the only correct way. On the other hand, it is enriched and concretised by the data of the special sciences and social practice. In this epoch of great scientific discoveries and profound social transformations, it is simply impossible to take a consistently scientific and revolutionary stand without Marxist-Leninist philosophical training. That is why the Marxist-Leninist parties devote such attention to the ideological and political education of the working people and the dialectico-materialist training of their cadres. Ideological and methodological training hinges on a study of Marxism-Leninism and its theoretical basis: dialectical and historical materialism. A knowledge of the laws governing the development of the world and the laws of social development is an earnest of success in the solution of arising problems in the interests of the working class and the peasantry, in the interests of all the working people.

5. Partisan Nature of Philosophy

Since ancient times, numerous philosophical theories have existed and continue to exist in the world. Each of these, in its essence and content, is either materialist or idealist. Each of these is connected with the interests of a particular class or social group. Herein lies its partisan, class nature.

Through philosophical doctrines, various classes and social groups seek to substantiate in theoretical terms their status in the society and their attitude to the surrounding reality, to the processes within it. As the basis of the world outlook of this or that class, philosophy moulds the mentality, behaviour and ideals of that class.

Materialism has always been the world outlook of progressive classes, and idealism, of reactionary classes. The struggle between progressive and reactionary classes and forces in the society has always been reflected in philosophy through the struggle between materialism and idealism, dialectics and metaphysics. Now as in the past, materialism and idealism remain the two basic, antithetical, contending parties in philosophy. "Recent philosophy," Lenin wrote, "is as partisan as was philosophy two thousand years ago."¹

The validation by the founders of dialectical and historical materialism of the party principle in philosophy is among the greatest gains of present-day scientific thinking, for that principle makes it possible to determine the place and historical role of various philosophical theories in the life of the society, and to expose the flimsy and reactionary essence of idealism, the fact that idealism defends the interests and requirements of historically outgoing classes and social forces.

¹ V. I. Lenin, *Collected Works*, Vol. 14, p. 358.

Present-day bourgeois philosophy denies its partisan nature. To counter Marxism-Leninism, it puts forward theses of a "non-partisan", "supra-class"* and "de-ideologised"** theory. Its representatives maintain that the party principle is incompatible with scientific objectivity.

Lenin convincingly showed that the idea of a non-partisan approach in the bourgeois society is false and hypocritical, and is meant to cover up the bourgeois partisan approach. Under that cover, bourgeois ideology is being spread among the masses, an ideology whose purpose is to deceive the masses, to strengthen and perpetuate exploitation and oppression.

Bourgeois ideologues in the service of imperialism, colonialism and racism are obliged to obscure the partisan nature of their philosophical theories. Their party allegiance needs to be camouflaged, for it reflects the exploiters' stake in preserving capitalism and neocolonialism and rules out any scientific objectivity. Bourgeois partisanship orients scientific research towards presenting the world and social development in a light which suits the exploiters. That is why bourgeois ideologues face an alternative: either the principle of party allegiance or the principle of

* Unrelated to the interests of any classes.

** Unrelated to any ideology.

scientific objectivity.

But, on the one hand, they cannot openly admit their fidelity to the system of exploitation and oppression because this would set them against all the working masses and the peoples fighting for national liberation and social emancipation. On the other hand, they cannot admit that the theories are unscientific, for such an approach can hardly win anyone over to their side.

In the Marxist-Leninist philosophy, the party principle is seen quite differently. The working class does not need to camouflage its positions. Its goal is to eliminate all exploitation and oppression and build socialism, and this goal coincides with the tendency of mankind's social development. The successful solution of the problems facing the working class, the toiling peasantry and the revolutionary intelligentsia depends on the depth of their scientific knowledge of reality and their ability to take into account and apply its laws. That is why in the Marxist-Leninist philosophy, as the theoretical basis of working-class ideology, the party approach and the principle of scientific objectivity coincide and condition each other.

The necessity of socialism replacing capitalism, scientifically substantiated by Marxism-Leninism, generates fear and hatred among the exploiter classes. As for the working class, the

peasantry, the revolutionary intelligentsia and all the other sections of the working people, this necessity inspires them with optimism and a striving for the revolutionary transformation of the world. That is why the Marxist-Leninist philosophy is profoundly scientific, openly partisan, and irreconcilable to bourgeois ideology, the religious and idealist world outlook, and survivals of the past.

Topic 2.

THE HISTORY OF
PHILOSOPHY AS A
HISTORY OF
STRUGGLE BETWEEN
MATERIALISM AND
IDEALISM

1. The Origins of
Materialism and Idealism,
Their Constant Struggle

Philosophy as a system of views of the world, as a world outlook took shape in the slave-holding society. In the primitive-communal society, philosophical thinking was embryonic. Thus, people in that society had no scientific idea about the structure of the human body, the causes of death, dreams, etc., and came to believe that thinking and sensation are the product of the soul, a special element which animates the human body and leaves it upon the person's death. Engels wrote: "The question of the relation of thinking to being, the relation of the spirit to nature—the paramount question of the whole of philoso-

phy – has, no less than all religion, its roots in the narrow-minded and ignorant notions of savagery.”¹

So, idealist views, just as religious beliefs, are rooted in the notion that thinking, ideas exist independently of matter. The initial form of the general view of the world was the religious world outlook, engendered by primitive man’s impotence in the struggle against nature, by his fear of its mysterious elemental forces. Primitive man had a distorted idea of his dependence upon nature, expressing his weakness in the face of nature in fantastic images.

With the society’s division into classes, into slaves and slave-owners, religious and idealist views also came to be engendered by man’s dependence on ungovernable social forces, which were just as overwhelming as natural forces.

But even in the primitive-communal society man was beginning to take a naively realistic view of the world. Daily experience, practical work, and curiosity inevitably gave people a natural enough idea of the objective existence of the world, even if expressed in a naive form. Daily observations showed man that other people, plants and animals were an objective reality and existed independently of his own self. Such was the origin of the first naively spontaneous mate-

¹ Karl Marx and Frederick Engels, *Selected Works* in three volumes, Vol. 3, Progress Publishers, Moscow, 1976, p. 346.

rialist notions, the first elements of a spontaneously materialist world outlook.

In the consciousness of primitive man, there was a struggle between spontaneously materialist tendencies, closely tied in with work and practice, and religious-idealist tendencies, which reflected man's impotence in the face of nature.

As more or less integral world outlooks, materialism and idealism emerged and took shape in the slave-holding society. With the development of slavery, the separation of mental work from manual work, and the emergence of the state, human notions changed accordingly. The gods, which largely used to personify the forces of nature, tended to acquire social attributes and to personify social forces, which were just as menacing and incomprehensible as the elemental forces of nature. New theological doctrines deified the power of the kings and the slave-owning elite, and eulogised slavery. Other doctrines explained the world as an embodiment of "divine will", preached creation of the world by the gods, the transitory nature of earthly existence, and immortality of the "soul". At the same time, the development of the productive forces—growth of agriculture and irrigation, building activity in the countries of the ancient East, the emergence of other branches of production—helped to accumulate and systematise mathematical and astronomical knowledge, and also some data in

mechanics, chemistry, and techniques used in the working of materials. The materialist world outlook took shape as rudimentary scientific knowledge accumulated in a struggle the progressive forces of the slave-holding society waged to develop the handicrafts, trade and science, and against the political and economic rule of the conservative aristocratic clans of the slave-owning elite, which had a stake in social stagnation.

In their struggle against materialism, representatives of the reactionary slave-owning elite began to elaborate idealistic conceptions to justify religion in contrast to the materialist explanation of the processes unfolding in the world. Thus, the ceaseless, unabating struggle between materialism and idealism dates back to their origination.

2. The Struggle Between Materialism and Idealism in the Slave-Holding Society

The materialist view of the world is rooted in antiquity. It began to take shape in Egypt and Babylonia at the end of the 3rd and the beginning of the 2nd millennium B.C.

The earliest blows dealt by progressive thinking at the world outlook of the slave-owning elite

were directed against the religious dogma of life beyond death, against the injustice of the entire social system of the day. The monuments of ancient Egyptian culture show that some thinkers were already beginning to guess at the material origins of natural phenomena. Thus, some mentioned cool water as the origin of the living beings and other objects, and others said that space and all things were filled with air.

Although the earliest spontaneously materialist and atheistic views that were beginning to take shape in ancient Egypt and Babylonia were overwhelmed by the predominant religious-idealist views, their fruitful influence on the subsequent development of science and materialist thought in the ancient world was undoubtedly very significant. In ancient India and China, the materialist and idealist trends in philosophy took a more integral form.

Philosophy in ancient India originated around the middle of the first millennium B.C. Even at the time of the predominance of religious and mythological views, reflected in the *Vedas*¹ and

¹ *Vedas*—an ancient monument of Indian literature, expressing the religious world outlook and also some philosophical ideas about the world, man and the moral way of life. The *Vedas* are divided into four parts: the *Samhitas*—a collection of religious hymns; the *Brahmanas*—a collection of ritual texts; the *Aranyakas*—rules of behaviour for hermits, and the *Upanishads*—the philosophical part, which was added around the year 1000 B. C.

the *Upanishads*, the first elements of the philosophical consciousness were already beginning to emerge and the earliest philosophical doctrines, both idealist and materialist, were taking shape.

The most ancient materialist philosophical trend in India was the Lokayata (or the school of the Charvakas), founded by Brihaspati. The Charvakas believed the world was material and consisted of four primary material elements: fire, water, air and earth. All living beings, including man, they believed, also consisted of these elements. Upon their death, living organisms decomposed into these elements. The Charvakas criticised the religious notions of God, an immortal soul, and an afterworld, and tried to prove that consciousness disappeared with the death of the body. That is why they also rejected the doctrine of reincarnation.

The Charvakas' materialism was closely connected with their atheism. They denied the existence of a God and believed the material world to be independent of any divine providence and to develop in accordance with its intrinsic causal connections. They denied the existence of an extraterrestrial heaven and hell, maintaining that heaven was pleasure and hell, suffering. In their ethics,* the Charvakas assumed that suffering

* Ethics - a discipline dealing with morality as a form of social consciousness, as a crucial aspect of human activity and a specific phenomenon of social life.

cannot be totally eliminated, but can be reduced to a minimum, while pleasure can be increased to the utmost. Their ethics, however, did not amount to an advocacy of sensual pleasure-seeking, but a reasonable demand for a happy life for all.

Materialistic tendencies also manifested themselves to some extent in various other schools and trends in ancient India. Thus, the philosophical doctrine of Samkhya, founded by Kapila somewhere around 600 B.C., explained the world from a material source. Its representatives saw the world as material, as gradually developing from a universal primary matter (*prakṛti*). One of the propositions formulated by the Samkhya school – the proposition that motion, space and time are properties of matter and are inseparable from it – was a major achievement of ancient Indian philosophy. At the beginning of our era, however, that school gave way in the struggle against idealism. Thus, by way of compromise, it conceded the existence of separate souls (*puruṣa*) independent of matter.

With the development of ancient Indian philosophy, the earliest notions of matter as a combination of elements (fire, air, water and earth) came to be replaced with more developed materialist notions of an atomic structure of the world.

The philosophical schools of Nyaya and Vaisheshika developed the ideas that the world con-

✓ consisted of qualitatively diverse particles (*anu*) of water, air, fire and earth, contained in ether, space and time. The *anu* for them were eternal, uncreatable and indestructible, while the objects they formed were changeable, inconstant and transient.

Materialistic ideas had a strong influence even on orthodox religious and idealist schools and doctrines (Mimansa, Jainism, Buddhism, and others). Thus, the idealist religious school of Mimansa, which defended Vedic ritualism,* religious ceremonies, immortality of the soul, etc., recognised the reality of the world, which did not need a creator to exist, which had always existed and consisted of atoms governed by the autonomous law of *karma***

The decline of the slave-owning system in India coincided with a spread of extreme mystical forms of idealism.

In ancient China, as in India, the rise and development of slavery saw the formation of two world outlooks: materialist and idealist.

IV Confucius (551–479 B.C.) made a serious contribution to the development of Chinese culture. He is widely known as the founder of an ethico-political doctrine. His doctrine was based on the ethical principle of *jen* (humanism), which deter-

* From Latin *ritus*: religious act or ceremony.

** From the Sanskrit word meaning action, effect, fate.

mined the relations between people in the society and the family, and which advocated love and respect for one's elders, both in age and social status. Confucius said that every man should act in strict accordance with his status, called for mutual magnanimity and for self-perfection through education and learning.

His rational ideas on moral education, on the unification of fragmented China, and on the usefulness of knowledge played a positive role. But alongside progressive ideas, he preached ancestor worship, defended traditional religious ceremonies, and believed that man's future was predestined.

Mo Tzu (479-381 B.C.) was another great thinker of ancient China. In contrast to the Confucianists, he maintained that there is no predestination. He denounced wars of conquest and advocated peace among states.

Mo Tzu's theory of knowledge already contained some elements of materialism, eventually developed by his followers.

Subsequently, the materialist world outlook was developed in the philosophy of Taoism, founded by Lao Tzu (6th-5th centuries B.C.). Lao Tzu and his followers saw the world as eternal and believed it was in a state of constant motion and change. That motion, they believed, was guided and directed by *tao*, the law of nature.

Naive materialist ideas were further elaborated

VI by Hsün Tzu (c. 298-c. 238 B.C.), one of the leading Confucianists. In contrast to other Confucianists, he believed that Heaven had no consciousness and was a part of nature, in which he also included the Sun, the Moon, the stars, the seasons, light and dark, wind and rain. Heavenly phenomena, he believed, ran their course according to definite natural laws, and Heaven had no "will" which could determine human destinies. Hsün Tzu maintained that, in contrast to animals, men could pool their efforts and lead a social life. People were born egoists, so that the sage was in duty bound to educate every man in the spirit of Confucian ethics. Another important idea is that man can get to know the surrounding world and use the knowledge in his own interests. Cognition begins with sensations, but is controlled by thinking, which operates in accordance with natural laws.

At the beginning of our era, the ancient Chinese society went through a deep crisis, which strengthened the positions of religion, mysticism, magic and fortune-telling. Materialism also developed in the struggle against religion and mysticism. Thus, the most outstanding materialist of that period Wang Chung (A.D. 27-104) said that the world consisted of an eternally moving material substance *ch'i*, and *tao* was the way of nature itself. All things were engendered by the interaction of two *ch'i*: rarefied, celestial, and condensed,

in the form of various bodies on the Earth. He saw man as a natural being made up of a material substance. A vital force, or spirit, was generated in the human body in the course of circulation of the blood. When a man died, it simply ceased to exist. Wang Chung's materialism was naive and metaphysical.

So, philosophy first emerged in human history in the countries of the ancient East: Egypt, Babylonia, India and China. From the very beginning, it divided into materialist and idealist trends. The spontaneous materialist views of the ancient philosophers were rooted in the "naive realism" of primitive man. The idealist doctrines of the ancient East were internally contradictory, often containing elements of spontaneous dialectical thinking.

From the 6th century B.C. onwards, philosophy developed very rapidly in ancient Greece. The materialist outlook there also emerged in a struggle against religion and reflected the interests of the progressive strata of the slave-owning class. Greek materialist philosophy was founded by the representatives of the Milesian school: Thales of Miletus (c. 624-547 B.C.), Anaximander (c. 610-546 B.C.) and Anaximenes (c. 585-525 B.C.).

According to Thales, water was the single material substratum of the whole Universe. Water was the origin of all things, and everything

ultimately turned into water.

Anaximander derived the world from what he called apeiron, an indefinite substance which engendered things and phenomena by way of motion and separation into such contrasting qualities as wet and dry, hot and cold. Things emerged and existed for some time and then disintegrated and disappeared for the same reason, once again turning into apeiron. According to Anaximander, there was perpetual circulation in the world, in the course of which some things arose from apeiron and others disintegrated back into it. So, in following his materialist line, Anaximander attempted to present the world in a dialectical light, in motion.

Anaximenes took a similar view of the nature of things perceived by the senses. He believed that the basic building block of all that existed in the world was air, whose motion led to the emergence and disappearance of separate things.

Another ancient Greek philosopher, Heraclitus of Ephesus (c. 530-470 B.C.), made a considerable contribution to the development of the materialist view of the world. He derived the world from fire, which led to the emergence and disappearance of things. The world, he said, was not created by anyone, but existed eternally, independently of any supernatural forces. It had not been created by any god or man, but had been, was and would remain an "ever-living fire kin-

dling in measures and being extinguished in measures”.

Heraclitus kept emphasising the idea that the world was in constant motion and change, that “strife” was the source of motion, and that opposites could change into each other. He formulated something in the nature of dialectical principles, which to some extent reflected the actual state of affairs even though they were not based on scientific knowledge.

Later on, materialist philosophy was developed in a most profound way by Democritus (5th century B.C.), who formulated the atomic theory of the structure of matter. The world, he said, consisted of atoms and space (the void) through which they moved. Moving in that void, the atoms met and clung together to form various bodies. All that existed was made up of atoms. The human soul was also a combination of definite atoms and disappeared with the death of the body. The death of the body and soul was a disintegration of the constituent atoms.

The materialist views of Democritus and other philosophers were opposed by Plato (427-347 B.C.), an idealist philosopher of Greek antiquity.

His theory divided existence into a real world, which consisted of absolute ideas, and an unreal world, which included separate sensory things and which was only a shadow of the real world, the realm of ideas.

The realm of ideas, he believed, was integrated into a single whole by the idea of "supreme good" and was eternal, while separate things and phenomena were transient and temporary. They emerged from shapeless, indefinite matter as a result of its combination with some idea, and disappeared as soon as that idea left the thing it had formed. According to Plato, actual things and phenomena were created by ideas, whose ultimate origin was God. The connection between Plato's philosophy and religion, its idealistic nature are obvious.

Ancient Greek philosophy reached its peak in the works of Aristotle (384-322 B.C.). Aristotle summed up and developed all that had been done by earlier thinkers. His works embrace all aspects of reality: nature, the society and knowledge.

Aristotle believed that all things arose from a material substratum, which was shapeless and indefinite, that is, was in effect no more than a potentiality of existence. That potentiality turned into an actual sensory thing only when matter was combined with some form, which defined it.

That view is essentially materialist, but it also has serious shortcomings. Aristotle separated the material substratum from motion, which was injected from outside by the form. The change of matter from an indefinite into a definite state, and then from one state into another had its ultimate origins in God as the first cause of motion.

All of this shows that Aristotle's theory was inconsistent and that alongside elements of dialectics and materialist tendencies it contained elements of metaphysics and idealist tendencies.

Aristotle's death was followed by a decline in ancient Greek philosophy, caused by a general crisis of the slave-holding state, and materialism tended to give way to idealism and mysticism.

3. The Struggle Between Materialism and Idealism in Medieval Philosophy

In the Middle Ages, religion ruled supreme, leaving its imprint on every sphere of spiritual life in the society. Philosophy in that period degenerated into a handmaid of theology. It was meant to justify and substantiate clerical dogmas, to prove their truth and immutability. That is why all philosophical problems inevitably had a religious tinge.

Medieval philosophers attached particular attention to the correlation between general ideas and individual objects of the sensory world. The efforts to answer the basic question of philosophy and the struggle between materialism and idealism in that period were tied in with the question of the correlation between the general and the individual, general ideas and separate objects.

The idealists maintained that the general existed independently of individual objects and prior to these, that it was connected with God. As for various individual objects, these had been ultimately created by God. The advocates of that viewpoint were called realists, for they assumed and sought to substantiate the real existence of general concepts.

The materialists declared that the general could not exist as a reality or, moreover, prior to the individual. What really existed, they said, were only individual objects, while the general was no more than a name, which did not reflect anything and so did not exist in reality. The advocates of that viewpoint were called nominalists, for they denied the real existence of the general and declared it to be no more than a name.

Some 13th-century scholastics* attempted to bridge the gap between the nominalists and the realists. Thus, one of the leading medieval scholastics, Thomas Aquinas (1225-1274) asserted in his doctrine of being that all being – both actual and potential – could only be the being of separate, individual things. He called such being substance. According to his teaching, matter could not exist independently of form, while form existed independently of matter. Corporeal things

* Scholasticism – a type of religious philosophy dominated by theology.

of the natural world were always a conjugation of form with matter. The material could not exist independently of the supreme form, i. e., God.

In "demonstrating" the existence of God, Thomas Aquinas did not start from the concept of God, but from the fact that every phenomenon has its cause. As we climb the ladder of causes, he asserted, we arrive at an understanding of the necessity of God, the supreme cause of all real processes and phenomena.

According to Thomas Aquinas, reason was connected with the sensations, so that it was possible to know only the corporeal world, while the supercorporeal world was unknowable, the essence of things was beyond human understanding. There could be no adequate correspondence between thought and reality. The general was the product of our mind, but it was connected with reality that existed outside the mind. Hence, he concluded, the general existed on its own.

Thomas Aquinas tried to substantiate in theoretical terms the subservient role of philosophy as regards the religious teaching. In his view, philosophy performed the same tasks as theology, i. e., it deduced and substantiated religious dogmas, but in a different way. Theology derived these dogmas directly from God, and philosophy, from God's creation, from material things.

The deep crisis that engulfed a number of Oriental countries at the turn of the era left an

imprint on the development of Oriental philosophical thinking. In the 3rd and 4th centuries, the role of Confucian ideology in China waned perceptibly, while the religious mysticism of the Taoist sect spread across the country and Buddhism increasingly penetrated from India. The Buddhists preached that being was illusory and nonbeing real, believed in the immortality and transmigration of souls, and that eternal spiritual peace could be attained through the cultivation of one's self-consciousness. The progressive thinkers of the day came out against mysticism and idealism. Thus, Fan Chen (5th-6th centuries) maintained that there was no afterworld and that the human soul was a form of the body's existence, disappearing upon the man's death.

In the struggle against the Buddhists, the Confucianists of the 7th, 8th and 9th centuries put forward some materialistic propositions. Later on, however, they once again discarded these elements of materialism and advocated idealism. The neo-Confucian idealist doctrine of Chu Hsi (1130-1200), which urged people to bear their sufferings without a murmur and preached full submission to the ruling class, became the official ideology and was widespread not only in China, but also in Korea and other countries of East Asia in the Middle Ages.

The leading materialist-minded philosopher among the neo-Confucianists was Chang Tsai

(1020-1077). He rejected the idealist notions about heaven and earth being a sum-total of subjective sensations. According to his doctrine, the real universe was based on a material substance, which assumed diverse forms. In its ultimate state, that material substance was an infinite vacuity filled with invisible dispersed particles. When these particles condensed, they formed a nebulous mass called a "great harmony", consisting of passive and active particles. The interaction of these particles gave rise to all things. In speaking of change and development, Chang Tsai described two sets of laws, or principles: general laws governing all things and particular laws, peculiar to individual things. He pointed out that all things were mutually conditioned and interconnected, that the process of the development of phenomena had two forms—gradual and sudden—and that the whole development process unfolded in a struggle of opposite forces: activity and tranquility. From these important dialectical propositions, however, he drew metaphysical conclusions, saying that the struggle of opposite forces ultimately resulted in their reconciliation, which constituted the basis of all motion.

In the 17th and 18th centuries, materialist ideas and propositions were further developed and substantiated in greater depth. Thus, Wang Chuang-Shan (1619-1692) said that nature was in constant motion and that motion engendered

new things and phenomena. He asserted that cognition was an exclusively human ability, and that perception occurred only when the sense organs came into contact with things of the external world. According to his doctrine, sensory perception was only the starting point and basis of cognition, whereas the essence was apprehended by thinking.

Ideas on the materiality of nature and development laws were also elaborated and substantiated by Tai Chen (1723-1777), a philosopher of the orthodox school. But in social matters, that philosopher of encyclopedic erudition, like his materialist predecessors of the 17th century, did not go beyond idealistic notions. He saw the way to liberation from social oppression in the self-education of the people.

The transition to feudalism in India, as in other countries, entailed a spread of religion and idealism.

In the early Middle Ages (9th-11th centuries), the most influential among the orthodox systems were Nyaya, Vaiseshika, Sankhya, Yoga, Mimansa and Vedanta, and among the non-orthodox, Charvakas (Lokayata), Jainism and Buddhism, with its four schools: Vaibhashika, Sautrantika, Madyahika and Yogachara. Yoga, Vedanta and the Buddhist schools of Madyahika and Yogachara were consistently idealist, and only the Charvakas took a consistently ma-

terialist stand, while the remaining systems contained both elements of materialism and idealism.

In that period, Arabic philosophy took shape and reached a high level of development on the basis of an assimilation of ancient Greek and Oriental philosophy. In the 10th-13th centuries, it was represented by these movements: 1) the Eastern peripatetic system (Aristotelianism); 2) the Brothers of Purity doctrine; 3) Sufism, and 4) Muslim orthodox philosophy.

The Brothers of Purity, members of a secret religious-philosophical order which emerged in the middle of the 10th century, derived their doctrine from Aristotle in logic and physics, and from Galen in medicine and psychology. On general philosophical issues, they were neo-Platonists and neo-Pythagoreans. The Brothers of Purity wanted to unite all religions and philosophical doctrines on the basis of scientific and philosophical knowledge, which would purge religion of its misconceptions. To attain perfection, they believed, it was necessary to unite Greek philosophy and the Muslim shariat (code of religious, everyday and civic laws based on the Koran).

The Eastern peripatetic system (9th-11th centuries) played an important role in philosophical life. The first Arab philosopher who paved the way for Aristotelianism was al-Kindi (800-879). In his works, he elaborated questions relating to the causality of natural and social phenomena,

their law-governed nature. He recognised God only as the "remote cause" of all phenomena. Maintaining that the "body of the world" was finite and had been created by God, al-Kindi tried to prove that by logical reasoning. But he took a sceptical view of the Koran and some religious dogmas. His division of knowledge into three stages was of considerable importance. He said that the first stage of knowledge (logic and mathematics) led up to the second stage (the natural sciences), and then on to the third stage (metaphysical problems).

Sufism and orthodox religious-mystical philosophy were a reaction against materialism and rationalism in that period. Sufism is a doctrine close to neo-Platonism. The Sufists denied the truth both of sensory and rational cognition, preached asceticism and a renunciation of the world. They believed that true knowledge was a result of divine illumination, which occurred when the human soul united with God. Underneath the religious integument of Sufism, Oriental thinkers often expressed humane or even anti-religious ideas.

In the 13th century, the generally recognised philosophy of Islamic orthodoxy was the system of al-Ashari, who tried to prop up religious dogmas with rationalist arguments. According to al-Ashari, the material world consisted of measureless atoms separated from each other by a

vacuum. Space, time and motion also had an atomic structure. Time consisted of separate moments, which had no connection with each other: each subsequent moment was not conditioned by the preceding one. God, he believed, was the only cause of all that existed and all that was going on in the world. Al-Ashari and his followers denied the eternity of the world and its uniformities, asserting that God's will had not only created the world, but was still the guiding power. Things had no constant properties, all of which were created by God anew.

In the latter half of the 11th century, the peripatetic system was criticised by al-Ghazali (1059-1111). He rejected the doctrine of the eternity of the world and its uniformities. According to al-Ghazali, the world had been created by God out of nothing and divine providence constantly controlled the course of events. He also denied causality in nature, declaring that what was known as causal connection was only the habitual sequence of events in time.

The peripatetic system was further developed by Ibn Bajja (late 11th century-1138), Ibn Tufail (c. 1110-1185), and Ibn Rushd (1126-1198).

Ibn Rushd thoroughly reworked Aristotle's ideas. He believed that the material world was eternal in time but limited in space. He rejected the religious doctrine that the world had been

created by God out of nothing. According to his theory, God was the eternal source of reality, and matter – the sole basis of being – the eternal source of potentiality. Matter and form did not exist separately from each other. Matter, he said, was the universal and eternal source of motion. Motion was perpetual and continuous, for each new motion was engendered by the preceding one. So, materialist elements in his philosophy were combined with idealism. Everything in existence, he maintained, was a hierarchy crowned by God, the ultimate cause of being.

Ibn Rushd's doctrine on the dual nature of truth influenced the subsequent development of philosophy. It said that philosophical truths did not contradict religious truths: religion prescribed man's actions, while philosophy guided him towards a knowledge of absolute truth.

The philosopher's views on universals, or generic concepts, were of great importance. His views in this matter were materialistic. He believed that only concrete things were real, while universals were only their names, with a real basis. Apprehension of universals, he said, was the goal of cognition. With the help of logic, cognition goes over from sensation and sensory perception to a mental apprehension of the truth. Absolute truth, he believed, was knowable, but revealed itself gradually.

The progressive thinkers of Central Asia and the Middle East played an important role in the development of medieval philosophy: al-Farabi (c. 870-950), al-Biruni (c. 973-1048), Ibn Sina, also known as Avicenna (c. 980-1037), and Omar Khayyam (1040-1123). These philosophers often departed from idealist positions and expressed materialist views. Thus, al-Farabi believed that the material world consisted of six natural elements (simple elements, minerals, plants, animals, man and celestial bodies). The sources of knowledge, he said, were the sense organs, the intellect and speculation. Al-Biruni, too, had no doubt about the objectivity of nature and its uniformities. Nature, he said, was in constant change and development, with matter itself creating and changing the form of things. The soul for him was a property of the body.

The outstanding encyclopedist Ibn Sina saw philosophy as a science of being as a whole. He divided philosophy into three parts: physics (doctrine of nature), logic (doctrine of the cognition of nature and man) and metaphysics (doctrine of the cognition of being as a whole). He recognised the objective existence of nature, relied on facts and experiments, taking the materialist view. In his doctrine of logic, Ibn Sina largely agreed with Aristotle. In setting out the laws and forms of logical thinking, he tried to deduce these from the peculiarities of being itself. Logical ca-

tegies and principles should correspond to things, that is, to the uniformities of the objective world, he maintained in contrast to the Muslim scholastics of the Middle Ages, who conceived logic solely as an art.

Ibn Sina made a big contribution towards resolving the dispute between the realists and the nominalists. He argued that the general existed only in individual objects, constituting their essence. In thinking, the general existed on the basis of a cognition of real individual things. The general, he said, was an abstraction, while the Universe consisted of individual things. Ibn Sina brought out the interconnection between physics, logic and metaphysics. He showed that physics enriched logic with the idea of causality, while logic equipped physics with method.

Ibn Sina's metaphysics rested on the theory of emanation, which said that the world was not created by God, but originated from him in a natural way, that is, by way of emanation through a series of "intelligencies" he engendered. God could not create anything without the existence of potentialities, whose source was uncreatable and eternal matter. Hence, if God was eternal, the world was eternal as well, for cause and effect are always connected with each other: if there is a cause, there should also be an effect. The idea of an eternal material world undermined the religious world outlook. Ibn Sina's

materialist views exerted a powerful influence on the subsequent development of science and philosophy both in the East and the West.

4. Materialism in the Epoch of Ascendant Capitalism, and Its Struggle Against Religion and Idealism

The origination and development of capitalist relations of production invigorated the whole of productive activity, giving an impulse to the emergence and development of industry and trade. That required concrete knowledge of the laws of the surrounding world and made it necessary to study and understand nature. All of that left an imprint on the development of philosophy, which was proclaimed to be a science whose purpose was to establish truths that would assist men in their practical life and guide their activities in creating material values.

The general propositions of medieval philosophy and its method were rejected as false and misleading. New ways of research, new methods of cognition were put forward.

Francis Bacon (1561-1625) was among the originators of that tendency in philosophy. He sharply criticised the idealistic philosophy, right from antiquity through the Middle Ages. He criticised it for having turned into a handmaid of

theology, for having fallen so low as to corroborate its own propositions with religious dogmas. He also criticised the speculative nature of the reasoning, and said that its propositions were empty and meaningless.

In putting forward experience as the basis of cognition, Bacon sought to free the human consciousness of various preconceptions, which were an obstacle in the way of the cognition of truth. The material world, he said, had no beginning or end; it had existed and would exist forever. He declared that motion was one of the main properties of eternally existing matter, even though he limited it to a number of forms.

Bacon's method of cognition was also metaphysical and mechanistic. He could not as yet rise to an understanding of the fact that objects are not just a mechanical combination of some constant qualities, but an organic whole, where the various qualities and aspects are interconnected and transmute into each other, that a thing cannot be understood by combining information on its various aspects in a mechanical way.

In spite of some flaws in Bacon's doctrine, it was a considerable step forward in the development of philosophy, marking the emergence of a new form of philosophical materialism.

The materialist outlook was further developed by the English bourgeois philosopher Thomas Hobbes (1558-1679). Nature, he believed, was an

aggregation of bodies possessing two basic properties: extension and figure. He reduced all the diverse forms of motion to a single form: mechanical motion. He conceived such motion solely as a change of location in space.

According to his doctrine, the only scientific method of cognition was the mathematical method, based on such mathematical operations as addition and subtraction.

In elaborating his materialist doctrine of the world, Hobbes formulated atheistic conclusions. He believed that religion was the product of men's ignorance, their fear of the unknown future. It had nothing in common with science, he said, but it was necessary because it helped to keep the people within bounds.

René Descartes (1596-1650) presented a materialistic enough picture of the world. Nature, he believed, consisted of minute material particles differing in size, form and direction of movement. The whole diversity of bodies arose in a natural way from three different types of primary elements, which originally constituted the infinite Universe: fire-like, air-like and earth-like. All these elements were in motion, making up vortices. The vortical movement of the first type of elements gave rise to the Sun and the stars, of the second type of elements to the sky, and of the third type of elements to the Earth and the other planets.

That naive materialistic doctrine on the origin of the solar system was directed against the religious dogmas about the divine creation of the world, and was thus a progressive one at the time.

In his approach to the world, Descartes relied on science: mechanics and mathematics. That naturally influenced his doctrine, making it largely mechanistic. He did not see any qualitative distinction between living organisms and objects of inanimate nature. He saw animals and even man as machines of different complexity. He also reduced all the diverse forms of the motion of matter to movement in space.

Descartes was not a consistent materialist. He was a materialist when considering individual natural phenomena. But when he turned to the basic principles of being and cognition, he departed from materialism and tried to solve philosophical problems on the assumption that God, the soul, was the only source of being. In other words, the philosophical views of Descartes were dualistic.

His theory and method of cognition derived from pure reason, for he believed that experience did not play any significant role in the process of cognition, in which one should rely only on reason, on what he saw as its inborn principles and ideas.

The Dutch philosopher Benedict Spinoza (1632-1677) elaborated a more profound maté-

rialist doctrine. He believed that the world was basically integral and that its basis was what he called substance.* As for thinking, it was only one of the attributes of matter alongside its other attributes, like extension. Nature was eternal, had never been created, and the cause of its eternal and everlasting existing was to be found in nature itself. Being eternal, he said, nature manifested itself through its properties and states, of which there was an infinite number. One of these properties, motion, was infinite, that is, characteristic of all states of nature.

By declaring the world to be its own cause, Spinoza eliminated God as the creator of the Universe, dissolving him in nature. Religion for him was the result of human ignorance and fear of the future.

The materialist doctrines of the 17th century were progressive, although they had some shortcomings characteristic of metaphysical materialism. They expressed the interests of the bourgeois class, which in the 17th century was historically progressive. Materialism in that century was the world outlook of the bourgeoisie, fighting against feudalism for political domination in the society. But as soon as the bourgeoisie came to power and established its dictatorship, it began to move away from materialism and draw

* From Latin *substantia*: essence, standing under.

closer to idealism. The English Bishop George Berkeley (1684-1753) developed his philosophy of subjective idealism, and the English philosopher David Hume (1711-1776), his agnosticism. These philosophical systems exerted some influence not only on non-materialist thinkers, but also on those whose materialism remained metaphysical and mechanistic.

But the development and spread of materialist ideas could not be stopped. Materialism went on developing, and its struggle against religion and idealism further intensified, reaching its peak in the works of the French materialists: Paul Henri Holbach, Claude Adrien Helvetius, Denis Diderot, Julien Offroy de Lamettrie, and others.

The French materialists criticised religion and the clergy in a scathing and consistent way. Their atheistic writings are still relevant in our age.

They gave a more consistent answer to the basic question of philosophy. They declared that nature existed objectively, eternally, and had no need of God. Nature for them was an aggregate of diverse combinations of minute particles of matter (atoms or molecules), which had extension, weight, volume, motion and other properties. They saw motion as the fundamental property or attribute of matter. But while correctly maintaining that motion was an internal, inherent property of matter, the French materialists had not as yet discovered the source of motion, its cause.

Nor did they realise that motion had qualitatively diverse forms or that nature developed from lower to higher forms, denied the existence of leaps, and so on.

In the field of cognition, the French materialists believed that all ideas and notions arose from experience, taking shape in the process of cognition. They laid emphasis on sensory cognition, on sensations, which they saw as the only source of human knowledge. But while they were right in believing that sensations are the only source of our knowledge about the external world, the French materialists underestimated the role of thinking, even though they said it was necessary for a cognition of the truth. So, just as their predecessors, they still took a one-sided view of the correlation between sensory cognition and thinking.

Over the centuries, materialism had to carry on an irreconcilable struggle against various idealist and religious schools. Some of these, however, also contained progressive ideas. Thus, the Indian poet Tulsi Das (1532-1624), founder of the Bhakti movement, which was widespread in the 16th-18th centuries, came out against the caste system, social inequality and religious fanaticism, and the outstanding Indian thinkers Ram Mohan Roy (1772-1833) and Debendranath Tagore (1817-1905) did a great deal in defending and developing secular education and in studying and continuing the traditions of the Indian peo-

ple. The most advanced Indian intellectuals of the time formed a group called Young Bengal, whose ideological leader, Henry L. Derozio (1807-1831), advocated materialist views. In the second half of the 19th century, groups and societies seeking social and religious reformation were set up across the whole of India.

Russian thinkers, notably, Mikhail Lomonosov (1711-1765) and Alexander Radishchev (1749-1802), made a large contribution to the development of the materialist line in philosophy in the 18th century.

Lomonosov gave the most profound substantiation of philosophical propositions, validating these with natural-science data. He gave a materialist answer to the basic question of philosophy, maintaining that all bodies and phenomena were of a material nature. Matter, he said, consisted of atoms which joined together and formed molecules, or "corpuscles", and these constituted all "sensory bodies". For the first time ever, Lomonosov substantiated with the help of natural science the eternity and indestructibility of matter and motion, discovering the law of conservation of matter and motion. He emphasised that the connection between matter and motion was indissoluble, and that matter was in a state of constant motion. Like all other mechanistic materialists, he reduced motion to the movement of bodies in space, but divided it into two types:

external, when the body changed its position with regard to other bodies, and internal, when there was change in the position of the particles constituting this or that body.

In the theory of cognition, Lomonosov assumed that the world was knowable. He believed that cognition occurred through the direct perception of objects and phenomena by the sense organs and the subsequent processing of sensory data in the course of theoretical thinking. He ascribed an equally important role to experience and theoretical thinking in the belief that cognition of the truth was possible only in close interconnection between them.

So the materialist views of the 17th and 18th century thinkers were progressive. But all of these were to some extent marked by metaphysics, or a denial of development, of qualitative distinctions, contradictions in nature, etc., and also by a mechanistic approach, or reduction of the diverse forms of motion to the mechanical form, to a movement of bodies in space, with an attempt to explain the multiformity of qualitative distinctions on the strength of mechanical laws. That was undoubtedly due to the level of natural science in that period, when only astronomy and physics, mostly in the field of mechanics, were developed fairly well.

5. Classical German Philosophy of the Late 18th and the First Half of the 19th Century

The representatives of classical German philosophy elaborated the problems of materialism and dialectics in greater depth than ever before.

The founder of classical German philosophy was Immanuel Kant (1724-1804). What he did, among other things, was to formulate a number of problems of the theory of knowledge and rekindle an interest in dialectics, largely lost in the 17th and 18th centuries.

At first Kant devoted much attention to problems of natural science. Thus, he elaborated a hypothesis on the natural formation of the solar system from original masses of dispersed matter. That hypothesis, as Engels put it, made a breach in the metaphysical view of the world.

Later on, Kant turned to purely philosophical problems. His philosophical system "is the reconciliation of materialism with idealism, a compromise between the two, the combination within one system of heterogeneous and contrary philosophical trends".¹

Kant recognised the objective existence of matter, but believed that the world was chaotic, with-

¹ V. I. Lenin, *Collected Works*, Vol. 14, p. 198.

out any uniformities, and that only man introduced some order into that chaos in the process of cognition by arranging all phenomena in space and time and investing them with necessity, uniformity and causal connections. In his view, man himself created the world of phenomena and the laws operating in that world. Here we find a switch from materialist to idealist positions. Kant recognised sensation as the only source of knowledge, but believed that the essence of objects and phenomena, the "thing-in-itself", was unknowable. That was where Kant slipped to an agnostic position. G. W. F. Hegel (1770-1831) was the greatest representative of classical German philosophy. He elaborated a philosophical system which combined the idealist view of the world with the dialectical method. Hegel believed that the essence and basis of the world was an Absolute Idea, or Spirit, which existed outside man and was independent of him. Hegel's Absolute Idea is, in effect, human consciousness itself, separated from man and enshrined as supernatural reason. In the self-evolution of the Absolute Idea, Hegel distinguished three stages. At the first stage, he conceived the Absolute Idea as thought in the form of a system of self-evolving concepts unconnected with man. At the second stage, the Absolute Idea passed into its "other being" and was embodied in nature, which in itself was incapable of development; for Hegel, it

was only in the mind's eye that nature unfolded in space. At the third stage, the Absolute Idea, embodied in nature, engendered the human mind and social life.

Hegel's system was one of objective idealism, containing a subtle apology of religion and regarding the material world as something secondary, as a derivative of the ideal. But within the framework of that unscientific system, Hegel elaborated dialectics in such a profound and ample way as no philosopher had ever done before.

The idea of development runs through the whole of Hegel's philosophy. Any phenomenon, he maintained, should be seen from the standpoint of its emergence, change and disappearance. He discovered and formulated the fundamental laws of dialectics, elaborating the idea that the source of development is a struggle of opposites, that internal contradictions inherent in objects and phenomena are the root of all motion and life. He also took a dialectical approach to cognition, saying that truth is a process.

Naturally, Hegel's idealist system and his conservative political views had an adverse effect on his dialectical method.

The flaws of Hegel's method could be overcome and it could be further developed only on the basis of materialism, which would rely on science and present the world as it really is, without any extraneous additions. That is why the

objective demand facing philosophers at the time was to go over to materialist positions and make a critical review of the achievements of Hegel's idealist philosophy on a materialist basis.

The German philosopher Ludwig Feuerbach (1804-1872) partially fulfilled that historical task. He took a resolute stand in defence of materialism and showed that Hegel's Absolute Idea was nothing but the human mind divorced from its vehicle—man—and turned into an independent creative source of the external world. He pointed out that the role performed in Hegel's philosophy by the Absolute Idea was in theology performed by God. The Absolute Idea, he said, was no different from God, and Hegel's philosophy was yet another variety of theology. According to Feuerbach, thought could not exist outside man and independently of him, for it is a property of the human brain, its activity, in which the spiritual and the material are closely interrelated. Hence, thought (the spiritual) is not primary, as Hegel believed, but secondary, a derivative of matter.

Feuerbach pivoted his philosophy on man and nature, of which man is a part and which produced him, and made anthropologism * his leading principle, the point of departure in the elaboration of his materialist views.

* From Greek *anthropos*: human being.

While correctly emphasising in accordance with that principle that man is a part of nature, and that his consciousness, his thinking is a property of nature, Feuerbach overlooked the other side, the fact that man, being a part of nature, is at the same time a product of social life, and that his consciousness is determined not only by physiological processes unfolding in his organism, his brain in particular, but also by social relations, by the material conditions of human life.

Besides giving a materialist answer to the question of what is primary, matter or consciousness, Feuerbach gave an equally correct answer to the second aspect of the basic question of philosophy: he regarded the world as cognisable and sharply criticised Kant's agnosticism.

He saw sensations as a point of departure in the process of cognition. These, he believed, provided man with all the information about objective reality. Thinking, however, was also involved in the process. In other words, Feuerbach understood the close interconnection between sensation and thinking, between the sensory and the rational.

Feuerbach was resolutely opposed to religion and criticised it in a thorough way. He showed that there was nothing supernatural about God, which had been created by men in their own image and likeness. By showing that all the features attributed to God are perfectly human and belong either to individuals or to the human race

as a whole, he exposed the earthly roots of religion, bringing God down from heaven to earth.

But Feuerbach neither understood the class essence of religion nor showed the social causes behind the belief in God and a hereafter. That is why he could not point out any real ways for combatting religion. Moreover, he was not even opposed to all of religion, but only attacked traditional religion, which conceived God as a supernatural being. He urged the need for a new religion, in which the place of God would be occupied by man himself, and whose main principle would be the love of one human being for another.

Feuerbach's achievement was that his philosophy reinstated materialist principles, even though on the old metaphysical basis, without dialectics, which had been discarded together with Hegel's idealism.

6. The Philosophy of the Russian Revolutionary Democrats of the 19th Century

Many of the flaws of metaphysical materialism were overcome by the Russian revolutionary democrats, who came out with their philosophical views in the early 1840s and elaborated these over several decades: Vissarion Belinsky

(1811-1848), Alexander Herzen (1812-1870), Nikolai Chernyshevsky (1828-1889), Nikolai Dobrolyubov (1836-1861), and others.

In their philosophical views, the Russian revolutionary democrats relied, on the one hand, on the materialist philosophy of their Russian predecessors, Lomonosov and Radishchev, and on the other, on Hegel's dialectics and Feuerbach's materialism. At the same time, they to some extent generalised the contemporary achievements of natural science.

In contrast to Feuerbach, the Russian revolutionary democrats criticised Hegel without discarding his dialectics, and sought to combine it with materialism, to give it a materialist interpretation.

Thus, Herzen highly appreciated Hegel's dialectics, which had in general terms grasped the laws of motion and the development of nature and thinking, but criticised him for being too abstract, for loss of touch with reality, with life, for idealism. According to Herzen, it is not pure being that has actual, real existence, but material things, which make up nature. As for spirit and thought, these are a consequence of the development of nature, a property of material entities which have reached a certain level of development.

For the Russian revolutionary democrats, reality had an infinite number of qualities and was in

perpetual, never-ending motion and development. The source of development, they believed, was the struggle and transmutation of opposites. They also realised that in the course of motion and the development of nature there is a transformation of quantity into quality, with the emergence of something new and distinct from that which was before. The revolutionary democrats, Chernyshevsky in particular, demonstrated from various angles the operation of the law of negation of the negation in nature and the society, accountable for the constant change of forms and subsequent return, repetition of the past on a higher level.

So, the Russian revolutionary democrats largely discarded the mechanistic and metaphysical approach and made a step forward in uniting dialectics with materialism, in interpreting and validating dialectics on materialist lines.

Another achievement of the Russian revolutionary democrats was their resolute fight against agnosticism. Chernyshevsky rejected agnosticism, pointing to human life itself, to human practice, and maintained that the world was knowable and that our sensory perception was a correct reflection of reality.

The Russian revolutionary democrats also made some headway in overcoming the contemplative nature of philosophical theories. They sought to transform the world. Herzen, for in-

stance, saw dialectics as “the algebra of revolution”.

As for their social views, in that area the Russian revolutionary democrats, in spite of some materialist statements, remained idealists.

Topic 3.

THE EMERGENCE OF
THE MARXIST-
LENINIST
PHILOSOPHY AND
THE MAIN STAGES
OF ITS
DEVELOPMENT

1. Prerequisites for the
Emergence of the Marxist
Philosophy

The emergence and development of the Marxist-Leninist philosophy is a necessary consequence of the development of scientific thought and the society as a whole.

The creation of the philosophy of dialectical and historical materialism by Karl Marx (1818-1883) and Frederick Engels (1820-1895) was a great scientific achievement. As Lenin noted, by creating the revolutionary world outlook, Marx and Engels had produced a truly scientific theory, taught the working class to understand its historic mission, and pointed out real ways for it to eliminate the exploitive society and build socialism.

The emergence of the Marxist

philosophy was no accident, but a result of mankind's progress. Just as the whole of Marxism, the Marxist philosophy could have been elaborated only as a result of the protracted development of the society, of philosophy and the natural and social sciences. Marx and Engels were able to formulate it because definite social, natural-science and theoretical prerequisites for it had taken shape by that time.

a) *Socio-economic conditions*

The society's transition to the road of capitalist development was the general social prerequisite for the emergence of the scientific world outlook.

By the mid-19th century, capitalism had supplanted feudalism in a number of countries, engendering the bourgeoisie and the proletariat as the two main classes of the capitalist system. With the development of capitalism, class relations sharply aggravated. Exploited by the bourgeoisie and deprived of the most elementary human rights, the proletariat was rising up in struggle against the existing order.

At first, the proletariat's class struggle was spontaneous, in the form of sporadic action against individual capitalists. Gradually, however, it became ever more organised and purposeful. The early 1840s saw mounting protest and a struggle by workers in France, Germany and Britain. They demanded better working conditions,

shorter working hours, higher wages, and so on.

But to carry on a successful struggle as a class in its own right, the proletariat had to have a clear idea of its short-term and ultimate goals, effective ways and means. And that was possible only on the basis of a scientific world outlook. Hence the insistent need for a scientific theory which would enable the proletariat to understand the laws of the society's development and its revolutionary transformation.

So, life itself, the development of the working-class struggle against capitalist exploitation set a new task before the society and science, the task of formulating a revolutionary theory for the proletariat and all the other working people as an ideological weapon in their struggle for social justice and socialism.

Marxism emerged in response to that historical need, with the Marxist philosophy – dialectical and historical materialism – as its component part and theoretical basis.

b) *Natural-science prerequisites*

The proletariat's need for a scientific understanding of the world was a powerful incentive for the development of dialectical and historical materialism. But that need alone would have been inadequate. What was also necessary was a certain level of scientific development, convincing

facts for a materialist understanding of the world as a whole and social life in particular, and proof of the ceaseless development of nature and the society in accordance with their immanent laws.

In the early 19th century, science had reached a level which opened up real possibilities for the theoretical substantiation of the major principles of dialectics in the light of a materialist understanding of the world. Sufficient information had been accumulated for the development of a scientific, dialectico-materialist world outlook.

At that time, natural science was going over from the accumulation, description and classification of individual facts about the objects and phenomena being studied to an analysis of the processes going on in these objects and phenomena and establishment of connections among them. That inevitably helped to understand their essence and bring out the uniformities of their change and development.

As Engels noted, empirical natural science had been transformed into a "theoretical science and, by generalising the results achieved, into a system of the materialist knowledge of nature".¹ The development of mechanics, astronomy, physics, chemistry, biology and other natural sciences

¹ Frederick Engels, *Dialectics of Nature*, Progress Publishers, Moscow, 1974, p. 196.

ever more convincingly demonstrated the material unity of the world, the dialectical character of natural processes.

Three great discoveries of the mid-19th century were of particular importance for the formation of dialectico-materialist views. In 1842-1845, the German physicist Julius Robert Mayer discovered the law of conservation and transformation of energy. Independently of Mayer, that law was also discovered by the British physicists William R. Grove and James P. Joule, the Dutch engineer Ludwig A. Colding, and the Russian scientist Heinrich Lenz. The discovery of that law showed that mechanical force, heat, light, electricity, magnetism and chemical processes, i. e., the diverse forms of the motion of matter, are not isolated, but interconnected, and in definite conditions are transformed into each other without any loss of energy. The discovery proved that there is no origination or disappearance of energy, but only an incessant transformation of one form of energy into another. Engels called that law the absolute law of nature. It is the natural-science basis of the dialectical view of the world.

The development of science about the plant and animal kingdom also went to undermine the metaphysical outlook. In the 1830s, the Russian researcher Pavel Goryaninov, the Czech biologist Jan Purkyne, and the German botanists Matthias

Jakob Schleiden and Theodor Schwann completed the formulation of the cellular theory of the structure of plants and animals. That theory destroyed the old metaphysical notions which failed to see the unity between the plant and animal kingdoms, and also between their diverse species. It established the uniform structure of plant and animal organisms, explained the process of their growth, and paved the way for the further development of biology.

The third great discovery in the field of natural science, which played an immense role in revealing the dialectics of nature, was made by the British scientist Charles Darwin. On the strength of numerous facts from the life of plants and animals in natural and artificial conditions, Darwin came to the conviction that the species are not immutable, but keep changing. He convincingly demonstrated that all existing species originated in a natural way from other, earlier species. According to Darwin, plant and animal species changed as a result of natural and artificial selection. Darwin "put an end to the view of animal and plant species being unconnected, fortuitous, 'created by God' and immutable, and was the first to put biology on an absolutely scientific basis by establishing the mutability and the succession of species".¹

¹ V. I. Lenin, *Collected Works*, Vol. 1, 1977, p. 142.

So, the law of conservation and transformation of energy reaffirmed one of the major propositions of materialism, the proposition that matter and motion are eternal, uncreatable and indestructible. That law showed the unity and diversity of the forms of the motion of matter, the uniformities of their transmutation. The discovery of the cellular structure of all living organisms broke down the barriers between plants and animals, proving the unity of the organic world, governed by general laws of development. Darwin's theory of evolution showed that the organic world keeps changing and developing. According to that theory, all the present species of plants and animals are the result of protracted evolution. Darwin scientifically proved that all higher, complex living organisms have evolved from lower, simple ones, and that man himself is the product of a protracted evolution of the animal world. The evolutionary theory reaffirmed the basic idea of dialectics, the idea of development, of transition from simple to complex, from lower to higher.

In other words, the achievements of the natural sciences in the first half of the 19th century made it possible to formulate and validate the major propositions of materialism and the principles of dialectics.

c) Theoretical prerequisites

Conditioned by the socio-historical situation and the development of the natural sciences, the Marxist philosophy relied on the philosophical thought of its day. It continued and elaborated all the best and progressive ideas formulated by philosophers over the centuries. This means that the first half of the 19th century also saw the formation of theoretical prerequisites for the emergence of dialectical and historical materialism. The progressive ideas contained in classical German philosophy of the 19th century, the philosophy of Hegel and Feuerbach above all, were the immediate theoretical sources of the Marxist philosophy.

The philosophical views of Marx and Engels took shape in the course of a critical review of Hegel's dialectics and Feuerbach's materialism from the standpoint of the revolutionary proletariat.

In their youth, Marx and Engels took a great interest in Hegel's philosophy. Hegel was an objective idealist, but on that idealist basis he developed dialectics in a profound way.

Hegel formulated the main principles, laws and categories of dialectics. He showed that ideas develop progressively, from lower to higher forms, that in the course of such development there is a transformation of quantity into quality,

and that internal contradictions are the source of development. He also showed the interconnection among the main categories of dialectics, their mutual convertibility. But his dialectics was idealist, the dialectics of a consciousness beyond man and the Universe: an Absolute Idea or World Spirit. Moreover, Hegel used the laws of dialectics in analysing the past, but did not apply these to the future.

Taking a revolutionary-democratic stand, Marx and Engels defended the interests of the working people. That led them to an understanding of the decisive role of economic interests in relations among people. They realised that private property in the means of production was the root cause of social inequality and class struggle. All that undermined the idealistic foundations of Hegel's philosophy.

Feuerbach's materialism played an important role in shaping the views of Marx and Engels. Feuerbach resolutely rejected idealism and religion. He showed that philosophy should study nature and man, whom he saw as a product of the protracted development of nature. Consciousness, he believed, reflected and cognised nature. He described as mystical Hegel's Absolute Idea, which allegedly created and controlled the world. He argued that it is not gods who create the world, but men themselves who create gods in their own image and likeness depending on the

conditions in which they live.

Feuerbach's critique of idealist philosophy helped Marx and Engels to adopt a firm materialist stand. But they were not consistent followers of Feuerbach, for his materialism was metaphysical and, apart from that, his philosophical theory did not include socio-political struggle or show the role of practice.

Critically reworking Hegel's dialectics, Marx and Engels purged it of idealism and applied it to the cognition and revolutionary transformation of the actually existing world. At the same time, critically reworking Feuerbach's materialism, Marx and Engels purged it of metaphysics and the contemplative approach, and brought it in touch with life, with the emancipation struggle of the working class and the other working people.

2. The Essence of the Revolution in Philosophy Carried Out by Marx and Engels

The theory created by Marx and Engels marked a fundamental revolution in the history of philosophy, a genuine revolution in the development of science.

To bring out the essence of that revolution is to show the new elements introduced by Marx and

Engels into philosophical thinking, the distinction between their theory and earlier philosophical doctrines.

The main distinction lies in the social substance of their theory. Marx and Engels answered all imperative philosophical questions from the standpoint of the interests of the working class and the other working people. The principal social importance of their theory lies in the fact that it constitutes the world outlook of the revolutionary proletariat.

All earlier philosophical theories, except that of the revolutionary democrats, expressed in one form or another the social needs and interests of the propertied classes. Marx and Engels created a new philosophy, which meets the fundamental class interests of the working and exploited masses. The Marxist philosophy is an ideological weapon in the hands of the working class, showing all the working people the way to end their economic and spiritual slavery, the way of social emancipation. "As philosophy finds its *material* weapons in the proletariat, so the proletariat finds its *spiritual* weapons in philosophy."¹ So, the revolutionary proletariat has adopted the Marxist philosophy as an ideological weapon in the struggle for the power of the working class and

¹ Karl Marx, Frederick Engels, *Collected Works*, Vol. 3, Progress Publishers, Moscow, 1976, p. 187.

the other working people, for socialist construction.

Close connections with practice, with the revolutionary transformation of the world in the interests of the bulk of the working people is a major specific feature of the philosophy developed by Marx and Engels. "The philosophers have only *interpreted* the world in various ways; the point is to *change* it," Marx wrote, noting that specific feature.¹ But in order to change the world, one should know and be able to use for that purpose the laws of its existence and development. That calls for a strictly scientific philosophical theory, for a profound scientific world outlook.

Here is how Marx and Engels achieved that goal in their philosophy.

First, they united materialism and dialectics. Earlier materialist and dialectical theories were inconsistent: materialism was either spontaneous or metaphysical and mechanistic, while dialectics was idealist.

Marx and Engels creatively re-examined both materialism, freeing it of metaphysics, and dialectics, freeing it of idealism. As Lenin noted, they enriched materialism with dialectics, and put dialectics on a real basis. The development of dialectical materialism meant the development of a

¹ Karl Marx, Frederick Engels, *Collected Works*, Vol. 5, 1976, p. 5.

truly scientific world outlook, a profoundly scientific philosophy.

Second, Marx and Engels extended materialism and dialectics to the study and explanation of social life. Earlier materialists had been inconsistent, giving a materialist explanation of natural phenomena alone, whereas in the explanation of social phenomena and processes idealism still reigned supreme. With the materialist explanation of the society, materialism became not only scientific, but also consistent and complete, simultaneously dialectical and historical.

By creating dialectical and historical materialism, Marx and Engels staged a revolution in philosophy. Dialectical and historical materialism, which gives a scientific explanation of the world and the laws of its change and development, is not only a scientific world outlook, but also a method of the revolutionary transformation of reality.

3. The Creative Nature of the Marxist Philosophy

Dialectical and historical materialism is essentially creative. That is due to the following factors. First, in explaining the constantly changing and developing world, it keeps developing and self-perfecting in accordance with the changing historical conditions, and is enriched with new

scientific data and practical revolutionary experience. Second, dialectical and historical materialism keeps developing because it is a theoretical weapon in the hands of the working class and all the other working people in their revolutionary struggle, a powerful instrument of scientific cognition and revolutionary transformation of the world. To perform that role, it should always keep in touch with life, with revolutionary practice, answering practical questions, taking note of all that is new without delay, and orienting the masses towards it. Third, dialectical and historical materialism is creative because it is critical and self-critical. It retains only those conclusions and propositions which correspond to reality and serve the revolutionary renovation of the society, the needs of social progress. What makes dialectical and historical materialism creative, its founders noted, is that it is no dogma, but a guide to action.

Founded by Marx and Engels, dialectical and historical materialism was creatively developed by Lenin, by the Communist Party of the Soviet Union, and the international communist and working-class movement.

In the late 19th and early 20th centuries, Lenin defended and scientifically proved the truth of the dialectico-materialist world outlook in a struggle against idealism and metaphysical views. He substantiated and developed in every way the main

principles of that world outlook. He further elaborated and validated the fundamental principles, laws and categories of materialist dialectics, and creatively developed the dialectico-materialist theory of knowledge, tying in the scientific cognition of the world with its revolutionary and practical transformation.

While creatively developing the philosophical theory of Marx and Engels, Lenin also directed the practical implementation of its principles. He gave an all-round analysis of the uniformities of social development, substantiated the decisive importance of the material conditions of human life and, at the same time, showed the immense role of the revolutionary theory. On the principles of that theory, he founded a party under whose guidance the working class and the other working masses, rallied round it, abolished capitalism in Russia and built the world's first-ever socialist state.

In developing the theory of socialist revolution in the new historical conditions, Lenin proved that a revolution could initially win out in several or even in one individual country, and history fully reaffirmed that conclusion.

In elaborating that theory, Lenin substantiated the need to combine the proletariat's class struggle against the bourgeoisie with the liberation struggle of enslaved peoples for national independence and social justice. He also substantiated the

possibility and conditions for a transition to socialism by countries that were shedding the colonial yoke and seeking to overcome their age-old backwardness.

Lenin elaborated the idea of the dictatorship of the proletariat, put forward by Marx and Engels, and showed the need for it in the period of transition to socialism, bringing out its essence, tasks, mechanism and ways of further development. On the basis of the revolutionary experience of the working masses, he discovered the optimal form of proletarian dictatorship for Russia, and also showed the possibility of other forms. Lenin and his activity mark a whole revolutionary epoch in the life of mankind. The whole of historical practice has proved the truth of his doctrine beyond any doubt.

The Leninist stage in the development of the Marxist philosophy also includes works by Lenin's associates, by leaders of the CPSU and the Marxist-Leninist parties of other countries, and research done by Marxist-Leninist philosophers throughout the world.

At every stage of its history, Marxism-Leninism has kept developing its theory and methodology in a creative way, being enriched with new scientific knowledge and revolutionary experience, and winning over more and more adherents in the world. Its further development in our day is conditioned by the tasks of the revolutionary

struggle by the world's progressive forces in the period of transition from capitalism to socialism, by the practice of socialist construction in a number of countries, and the historical experience of existing socialism. The theory and methodology of dialectical and historical materialism is being further developed through a creative effort to solve the problems relating to mankind's social progress, to the development uniformities of the world socialist community, socialist-oriented development of the newly independent countries, the peaceful coexistence of states with different social systems and the possibilities of preventing a global thermonuclear war, use of the achievements of the scientific and technical revolution in the interests of the masses, correct use of natural resources and protection of the environment, and many other problems. Just as the emergence of the Marxist-Leninist philosophy, each new stage in its development reflects a general uniformity: the historical need for a solution of the imperative problems of revolutionary transformation and scientific progress.

The question of the creative development of the Marxist-Leninist philosophy has been and remains a focus of intense ideological struggle. The enemies of Marxism-Leninism—bourgeois ideologues and revisionists of all stripe—have been trying to undermine that integral doctrine. They contrast the views of the young Marx with

mature Marxism, Marx's own views with those of Engels, and Marxism with Leninism. They also seek to dismember Marxism-Leninism on geographical lines into "Western" and "Eastern", and to produce "European", "Asian", "Latin American", and "African" brands of Marxism-Leninism.

But in view of the creative essence of the Marxist-Leninist doctrine, all these attempts are bound to fail. Life itself, social practice, shows the integrity and historical continuity of that doctrine, its high-principled consistency in defending the vital interests of the international working class and all the other working people. It shows the invincible strength of the deeply scientific nature and party commitment of the Marxist-Leninist philosophy as a world outlook and methodology.

Topic 4.

MATTER AND THE FORUCS OF ITS EXISTENCE

A deeply substantiated scientific answer to the basic question of philosophy presupposes a knowledge of the nature of matter and consciousness. The concept of matter is the initial point of departure in materialist philosophy. Let us take a closer look at matter and the forms of its existence.

1. What Is Matter?

Man is surrounded by an infinite variety of objects and phenomena, ranging from invisible elementary particles to gigantic galaxies, from the simplest bacteria to the higher animals, from elementary mechanical processes in the inorganic world to conscious human activity aimed at trans-

forming reality. Since ancient times, man has been trying to get to the root of the diversity of the world, the basis of its existence. The idealists saw the first cause of existence in some supernatural force, an absolute idea or consciousness. Materialists saw nature as it really is.

They used the concept of matter to express the ultimate basis of the world. But what is matter, what is the substratum of the universe? The answers to that question have been changing as mankind has gained more knowledge about the world. Ancient philosophers ascribed the role of matter to various widespread substances or phenomena, like water, air, fire and earth. Later on, matter came to be seen as an infinite number of indivisible and immutable elements called atoms. The 18th-century French materialists, Ludwig Feuerbach, and the Russian revolutionary democrats came close to an understanding of matter as an abstract concept, which expresses the universal properties of the infinitely diverse and changing objects and phenomena of the world. But they could not give a scientific definition of matter, confusing its essence with natural-science notions about its structure. As a result, every new discovery in the natural sciences caused fresh confusion and contradictions in the understanding of matter. The situation took a particularly sharp turn in the late 19th and early 20th centuries, during the crisis connected with

the discovery of the electron and radioactivity.

From the days of Democritus (5th century B.C.), matter had been regarded as an aggregation of immutable and indivisible atoms, but the discovery of the electron showed that the atom, far from being eternal and immutable, contains even more minute particles, or electrons. It was also discovered that the mass of the electron depends on the speed of its motion, increasing at higher speeds and decreasing at lower ones.

When the notions about indivisible and eternal atoms and unchanging mass were exploded, many naturalists came to doubt the existence of matter as the basis of the universe. They argued that the break-up of the atom into electrons, whose mass depends on the velocity of their motion, means that matter is converted into motion.

The crisis in natural science further deepened with the discovery of other elementary particles and of the conversion of electrons and positrons into quanta of light. The fact that two particles of substance with opposite charges turn into light was seen as the disappearance of matter.

The idealists immediately took advantage of the nonscientific interpretation of the latest discoveries in natural science, saying that scientific achievements refuted materialism, that matter did not exist, and was a mere figment of the materialists' imagination.

The idealist offensive against the materialist view of the world had an adverse effect not only on scientific research, but also on the class struggle of the working people, led by the proletariat, for if the materialist doctrine has a false basis, all its conclusions are also bound to be erroneous. This means that the materialist understanding of history, the strategy and tactics of the class struggle, and the ideals of the revolutionary transformation of the society lack a scientific basis and are illusory. Hence, the working people's struggle for the ideals of socialism, based on the allegedly groundless materialist doctrine of the society, is meaningless and has no future ahead of it.

To defend the materialist doctrine, it was first of all necessary to give a scientific explanation of the discoveries in natural science, and such an explanation was given by Lenin.

Having analysed the causes and substance of the crisis in natural science, Lenin showed that it was due to the fact that scientists took a materialist but metaphysical stand. He also pointed the way out of the crisis: a switch to the positions of dialectical materialism, which has never reduced matter to any concrete eternal or immutable manifestations of it.

The founders of Marxism-Leninism assumed that matter could be defined only within the framework of the basic question of philosophy, with due account for man's practical relations

with the world. And in these relations, Engels noted, the concept of matter is an abstraction, a generalised reflection of the infinite variety of things, processes and relations of the external world.¹

Engels repeatedly emphasised that the concept of matter should not be identified with any of its concrete types or manifestations. He also criticised the attempts by naturalists to study matter as such, outside its concrete manifestations.

On the strength of the basic principles of dialectical materialism, formulated by Marx and Engels, and generalising the latest discoveries in natural science, Lenin defined matter as a philosophical category. He wrote: "Matter is a philosophical category denoting the objective reality which is given to man by his sensations, and which is copied, photographed and reflected by our sensations, while existing independently of them."²

As we find, the concept of matter in dialectical materialism reflects such a universal property of the things and processes of the external world as objective existence, that is, existence outside and independently of man's consciousness. Matter is an abstract concept which pinpoints that which is common to all objects and processes: the fact that they exist outside the consciousness, act upon the

¹ See Frederick Engels, *Dialectics of Nature*, pp. 235, 256.

² V. I. Lenin, *Collected Works*, Vol. 14, p. 130.

sense organs, and are reflected by the consciousness. Matter cannot exist otherwise than in concrete things, phenomena and processes. In effect, it is what constitutes the infinite diversity of objectively existing things and phenomena of the world, with man himself being part of that world.

Lenin's definition of matter is of exceptional importance for the development of philosophy and the natural and social sciences. It is important, first, because Lenin defined matter as a philosophical concept, used to designate that which exists objectively, outside and independently of consciousness. Such a definition eliminates one of the flaws of pre-Marxian materialism, which identified the concept of matter with natural-science notions about its structure, so that any change in human knowledge about the structure of matter can no longer refute matter as an objective reality. On the contrary, scientific discoveries serve to expand and deepen our knowledge of matter. That definition is equally correct both for the objects, processes and phenomena we already know, and for those which are still unknown. Second, Lenin's definition clearly showed the primacy of matter with regard to consciousness. Asserting the primacy of matter and its independence of consciousness, Lenin's definition strikes a blow at idealism, at various religious-idealist theories and conceptions. Third, the definition shows that matter is copied, photographed, and

reflected by our sense organs. And that amounts to a reflection of the surrounding world by the human consciousness, the process of human cognition. The proposition about the reflection of the surrounding world by the human consciousness, about man's cognition of the world strikes a blow at agnosticism. That proposition orients towards an effort to know more about the world, without which its revolutionary transformation is impossible.

Lenin's dialectico-materialist definition of matter as a philosophical category is one of the major criteria for distinguishing idealist and metaphysical conceptions beneath their pseudoscientific camouflage, no matter how skilfully they seek to cover up their unscientific view of the surrounding world.

2. Motion as the Mode of Existence of Matter

A knowledge of the universal forms of the existence of matter is of great importance for a scientific understanding of the world, and motion is one of these major forms. "There is nothing in the world but matter in motion," Lenin wrote.¹

Any objects we look at - atoms, molecules, living organisms, the surface of the Earth, planets,

¹ V. I. Lenin, *Collected Works*, Vol. 14, p. 175.

stars, galaxies, and so on—are in a state of constant motion and change. So, motion is universal. “*Motion is the mode of existence of matter...* There is no matter without motion, nor could there ever have been,” Engels wrote.¹

But the universality of motion and change in the world does not rule out elements of rest. In the course of any motion and change, the moving, changing object also has some stability, retaining some of its properties over a certain period of time. So, motion is inseparable from rest and stability. But rest has a temporary, relative nature.

Take any object, say, a sleeping man. Such a man is in a state of rest, but the rest is only relative, for without changing his position with regard to the objects in the room and to the house itself, the man is moving together with the Earth, and various complex physiological changes, circulation of the blood, breathing, and other processes are going on within him.

So, rest and stability are relative, while motion is absolute. While being in a state of rest in one respect, any object is in a state of constant change and motion in other respects.

The idea that motion is universal and is inseparable from matter was expressed by many philosophers. But pre-Marxian materialists gave

¹ Frederick Engels, *Anti-Dühring*, Progress Publishers, Moscow, 1975, p. 402.

motion a narrow and limited interpretation. The essence of motion was reduced to a change of location in space. Motion was seen from outside, from the standpoint of a change in the location of objects, rather than a change of the objects themselves.

In actual fact, the motion of matter includes not only mechanical movement of objects, but all the changes that happen to them. Engels wrote: "Motion, as applied to matter, is *change in general*."¹

Among the diverse forms of matter in motion, Engels emphasises the more important ones. These are: the mechanical form of the motion of matter (changes in the location of bodies in space in relation to one another), diverse physical forms of motion (heat, sound, electromagnetic, intra-atomic, intra-nuclear, etc.), the chemical form of motion (formation and break-up of molecules constituting diverse substances), the biological form of motion (organic life in all its diverse manifestations, the changes taking place in living organisms), and the social form of motion (development of the human society).

All forms of the motion of matter are strictly interconnected and interdependent. Some forms of motion are prerequisites for the emergence of other forms.

¹ Frederick Engels, *Dialectics of Nature*, p. 247.

Each of the forms of motion has its own specific features. Each form conditions the emergence of the next, higher form, and is itself included into the latter. At the same time, higher forms include lower, subordinate ones, are based on them, but cannot be reduced to them. Thus, a biological organism includes all the preceding forms of the motion of matter: mechanical, physical and chemical.

The existence of any living organism is connected with its mechanical motion (growth, movement, etc.) and also with physico-chemical processes. But its basis is metabolism, governed by specifically biological laws.

Higher forms should never be reduced to lower ones, for this leads to mechanistic and metaphysical conceptions, which make it impossible to explain the origination of higher forms. Nor should one absolutise the higher forms of motion, for then one fails to understand their connections with lower forms, tending to draw idealistic conclusions on the "supernatural" character of the former.

Science has not only discovered the actual transitions from one form of motion to another, but has even determined these transitions in quantitative terms. Thus, according to the law of conservation and transformation of energy, the overall amount of energy or motion remains the same, without increasing or decreasing, and the

motion only changes its form. That law provides scientific proof of the inner unity of matter and motion. Another manifestation of the connection between matter and motion is that we can only know the organisational level of a material object, its structure and specific features if we know the form of its motion.

The classification of the forms of motion given by Engels and its basic principles are just as valid today, although scientific progress over the past century has made it possible considerably to deepen and concretise his classification. The fuller our knowledge of the forms of motion, the fuller is our knowledge of matter in all its manifestations.

3. Space and Time as Forms of the Existence of Matter in Motion

All moving material objects in the surrounding world have a definite size, volume, and structure, and are located in certain ways in relation to one another. Apart from that, they make up sequences, with one object preceding the other or replacing it. These properties of material objects mean that they exist in space and time.

Space and time are universal forms of the existence of matter. Lenin wrote: "... Matter in

motion cannot move otherwise than in space and time".¹

The concept of space characterises the location of material objects in relation to each other, and expresses the extension of objects, their coexistence. Spatial relations include such properties of objects as their length, height, breadth, form, structure, and distance to other objects.

Time means a succession of states, the order in which some phenomena follow others, and the duration of the processes in which they are involved. Time makes it possible to follow the history of various objects.

A major feature of space is its three-dimensional nature. Space has three directions: left-right, forward-backward, and up-down. All these directions are graphically expressed by three mutually perpendicular lines. With these three lines, one can spatially determine any object.

In contrast to space, time has one dimension. It always flows in one direction: forward, that is, from the past to the present and then on to the future. Time is irreversible, it cannot be made to flow in the opposite direction.

The spatial and temporal characteristics of material objects are interconnected, which is clearly evident in their motion. It is known that

¹ V. I. Lenin, *Collected Works*, Vol. 14, p. 175.

all bodies move at certain speeds. Speed is the distance travelled by a body in a definite period of time. Here we find the interrelation of space and time, their connection with a moving material object.

Another major feature of space and time is their infinity. It could appear at first sight that space and time are finite, for they exist as properties and relations of material objects, whose existence has a beginning and an end. But while existing through finite things, space and time are infinite. Each thing is connected with other things, and these are connected with still others, and so without end. Consisting of finite magnitudes, space unfolds into infinity. The existence of each individual thing has a beginning and an end, but it was preceded by an infinite number of other things and will eventually be replaced by still other things, and so without end.

Religion and idealism deny the infinity of space and time. Religion seeks to prove that the world was created by a god and that one day it will come to an end. Idealists regard space and time as properties which the human consciousness ascribes to the surrounding objects. But it was back in ancient times that thinkers first expressed the idea that matter is infinite in space and eternal in time, and that Universe has neither a beginning nor an end. Only present-day science has been providing proof of that proposition.

Using modern scientific and technical achievements, researchers have been gaining a deeper and broader knowledge of the material world, ranging from the laws of the existence and motion of elementary particles to that of whole star clusters and galaxies.

The dialectico-materialist understanding of space and time is not only of theoretical, but also of great practical importance. The whole of social activity is man's vigorous interaction with the phenomena and processes of the surrounding world, which have spatial and temporal features. These features condition the modes, forms, rhythm and pace of social practice, and should be taken into account in all spheres of production and socio-political life.

The spatial factor markedly influences the methods of liberation struggle. Geographical peculiarities play an important role in the distribution and development of the productive forces. A country's spatial conditions are closely tied in with temporal factors. Spatial and temporal factors are taken into account in elaborating an economic strategy, planning consecutive transformations in social and spiritual life, creating a reliable system to defend the country's border against imperialist aggression, and so on.

4. The Material Unity of the World

The problem of the world's unity dates back to the earliest days of philosophy. From ancient times, thinkers looked for the common principle behind the world's change and development. Faced with an infinite variety of objects and phenomena in the world, they tried to find out what united it into a single whole. They tackled that problem depending on their stand.

Religious and idealist thinkers tried to derive the world's unity from a spiritual basis, which assumed various forms in their doctrines: God, divine force, world spirit, absolute idea, complex of sensations, etc. For materialists, on the contrary, the true unity of the world consists in its materiality, in objective existence independent of consciousness.

The material unity of the world is proved by the whole development of philosophy and natural science, the indisputable achievements of the natural and social sciences, and the results of human practice. It reveals itself in development, in the interaction of moving objects, which unites them into an integral system.

On the strength of geological data, scientists prove that the Earth and the other planets of the Solar System were formed from 5 to 10 billion years ago. At that time, the Sun in the course of

its movement entered a gigantic gaseous dust cloud. Under the impact of gravitational forces, the moving minute particles of cosmic dust and gases concentrated and formed the planets of the Solar System. For a long time, the Earth was a lifeless planet, and life on it originated about two billion years ago. Primitive man appeared on the planet roughly 2.5 million years ago, and his formation was completed about 50,000-70,000 years ago. With the emergence of man, consciousness arose as the property of the human mind to reflect the surrounding world in a specific way. Primitive man perceived the world as it really was. In a constant struggle for survival, he made tools, obtained food, hunted, and defended himself against wild beasts and the elemental forces of nature. All of that led him to the natural conviction that outside and independently of him there existed things which he could see and touch, which could be either useful or harmful for him, and which he could influence. But primitive man was too weak in the face of formidable natural phenomena, which he could not explain for lack of knowledge. Being unable to explain them, man gradually ascribed a supernatural force to these phenomena, and that eventually led to the emergence of religions, to a belief in supernatural forces and faith in God. All that man could not explain for lack of scientific knowledge, he ascribed to God's will and creation.

But as mankind accumulated knowledge about the world, science increasingly gained ground upon religion. Each new scientific discovery reaffirmed the material unity of the world. The material unity of the world embraces the interconnections and interdependence of objects and processes: gravitational pull between earthly and heavenly bodies, transmutation of elementary particles, exchange of diverse forms of energy, transmutation of chemical elements, unity of organic and inorganic nature, of the plant and animal kingdoms, ties between nature and the society, and so on. With the increasing comprehension of the structure of matter, the forms of its existence and the laws of its motion, it has become possible to harness natural forces and put them in the service of man.

Topic.5.

**CONSCIOUSNESS,
ITS ORIGIN AND
ESSENCE**

The concept of “dialectics” in the Marxist-Leninist philosophy is just as crucial as the concept of matter. All philosophical theories and systems are focussed on the problem of consciousness, its origin and essence. Antithetical solutions of that problem, just as the problem of matter, constitute the main criterion for judging whether a theory is materialist or idealist.

**1. Pre-Marxian Concepts of
Consciousness**

The question of the origin and essence of consciousness is most complicated, and men have been interested in it since ancient times. They were aware of the importance of consciousness, of the

human intellect in their life. It is with his consciousness that man appraises events and other people, appreciates the beauty of the world and the knowledge accumulated by past generations, assimilates advanced ideas, and fights for a society of social justice.

Human thought has travelled a long and contradictory way of development before understanding its own nature.

Ancient philosophers mostly used the concept of "soul" rather than "consciousness". By soul they meant the totality of man's psychic abilities: his ability to see, hear, think, feel, and so on. Materialists conceived the soul as a material entity engendered by natural causes, while idealists saw it as a supranatural essence temporarily inhabiting the human body.

As religion strengthened its positions in the society, the human consciousness came to be widely seen as being of divine origin.

Religious dogmas on the soul and consciousness changed very little in the course of time. As for idealist philosophy, it branched out into subjective and objective idealism. Subjective idealists tended to confine human knowledge and even the whole of the real world to the sphere of individual human consciousness, while objective idealists deified the consciousness, detaching it from the individual and mankind, from the conditions which engendered it.

With the development of science, the materialist conceptions of consciousness developed accordingly. Different materialist schools expressed diverse ideas on the emergence and nature of consciousness. Some realised that consciousness was an ideal, spiritual phenomenon, while others saw it as a material phenomenon. The former could not explain what they meant by ideal or spiritual, while the latter, who came to be known as vulgar materialists, believed that the brain secreted thought just as the liver secreted bile. Regarding consciousness as a function of the brain, they were nevertheless unable to understand its nature.

2. Consciousness as the Highest Form of Reflection

The key to the essence of consciousness lies in Lenin's proposition that "all matter possesses a property which is essentially akin to sensation, the property of reflection..."¹ Man's daily experience shows that all bodies, including inorganic ones, can reflect the external world, that is, "imprint" external influences in certain ways, changing under their impact. These changes or "impressions"

¹ V. I. Lenin, *Collected Works*, Vol. 14, p. 92.

left by one object upon another and retained by the latter for some time are called reflection. Reflection is intrinsic to all material objects, to all matter, and assumes different forms at different levels of its development.

In inanimate nature, reflection is purely mechanical. Thus, a stone will crumble when hard hit by a metallic object. A piece of wet clay will change its form when kneaded. Reflection in inanimate nature is a passive consequence of accidental interactions between objects and leads to various mechanical or even physico-chemical changes in their structure.

With the emergence of life, more complicated types of reflection began to take shape. Actually, the biological prerequisites for the formation of consciousness were, first, the origination and development of life on the Earth, up to the appearance of man; and second, the development of the reflective ability of living organisms.

Science maintains that life originated from inorganic matter through complicated chemical changes. The simplest organic compounds—hydrocarbons—first took shape in the conditions of the primeval ocean. Later on, these developed, by way of complexification and qualitative changes, into proteins and nucleic acids. About 1-1.5 billion years ago, these high-molecular biopolymers evolved into so-called coacervates, capable of metabolism and self-reproduction. So, the living

cell with its complex structure was gradually formed.

In the course of time, living organisms became highly differentiated. With their development, their reflection of external influences also developed and complexified. At the early stages of life on the Earth, the simplest living entities responded to various environmental influences by changes which involved all the chemical reactions and metabolic processes going on within them. Gradually, organisms developed a selective attitude to various substances, and sense organs were eventually formed.

In their evolution, the more complex organisms developed nerve cells, ganglions and systems, which evolved into specialised sense organs, the spinal cord and, finally, the brain. The formation and development of the nervous system marked a qualitatively new, psychic form of reflection. The nervous system harmonises and coordinates the operation of the various sense organs, and directs the organism's activity as a whole.

The higher an animal's place on the evolutionary ladder, the subtler and more diverse is the activity of its nervous system. Animals acquire an ability not only to respond to objects which exert a direct influence on them, but also to get their bearings in the changing environment they reflect, to find favourable and avoid unfavourable

objects and influences and even in a way to foresee future situations. Reflecting recurrent influences, the organism accumulates and stores information about them, so that when similar influences reappear, it prepares for them in advance. Thus, for many insects, a change in atmospheric pressure, which foretokes rain, entails a whole series of actions aimed at finding shelter in due time.

The behavioral activity of organisms already takes shape on the basis of elementary forms of psychic reflection. It amounts to the organism's active attitude to vital factors, a search for such factors if they are crucial to its existence, and avoidance of them if they are harmful or fatal. The search-and-orientation mechanism takes shape in the course of protracted evolution and is passed on from one generation to another. That mechanism is based on reflexes, or the organism's nervous response to various influences.

Reflexes can be inborn and acquired. Inborn reflexes are called unconditioned; they are evolved by a species over many generations and are hereditary. Reflexes acquired by an individual organism during its lifetime are called conditioned. The totality of inborn behavioral acts peculiar to a certain species of animals is called instinct. Instinct ensures the optimal (for the given species of animal) response to constant stimuli or irritants. Depending on the nature of the

requirements, researchers distinguish food, self-preservation, reproduction, and other instincts. The higher the place of a species on the evolutionary ladder, the more complex are its instincts. These can reach such a high level as to create an illusion of conscious action. Thus, an octopus will insert stones into an open oyster shell in order to be able to eat it without bother, and a young cuckoo will push the host-nestlings out of the nest to remove the "contenders" for the same food.

But instinct is only effective in certain conditions and is quite useless when these conditions change. The discrepancy between instinctive activity and new conditions is overcome with the help of conditioned reflexes and skills formed on their basis. Conditioned reflexes are acquired and retained in response to the influence of new conditions. When this influence changes or ceases, conditioned reflexes are replaced with others or disappear altogether. Their role in the life of living organisms is extremely important. They make the organism's interconnection with the external world more flexible, pliant and adaptable. Reflecting the world with the help of unconditioned and conditioned reflexes, animals adjust to the new environment and survive in new situations.

Anthropoid apes have the most developed psyche of all animals. Its supreme manifestation is concrete practical-situation thinking. By trial and error, apes can find answers to concrete problems.

Thus, if a banana is suspended from the ceiling and boxes are strewn over the floor, an ape will eventually manage to get the banana. Jumping up from the floor or from various boxes, it will eventually shift the boxes around, pile them one on top of another, and so reach the banana. Naturally, such activity cannot be seen as conscious.

Consciousness is the highest and purely human form of reflection. It arose with the emergence of man and the human society, and cannot exist outside that society.

3. The Emergence of Consciousness

Man's origins are connected with significant changes in the climatic and other conditions of life on the Earth. These changes led to a degeneration of vast tracts of forest. Many species of animals were unable to adapt to these unfavourable conditions and died out. But anthropoid apes, fighting for their life, took a special road. Having been obliged to get down from the trees, they had to defend themselves against predators and obtain food with the help of natural objects, like sticks and stones. Such actions were at first accidental, but since they usually led to positive results and helped to meet some need, they gradually became a habit, a need in their own right.

And that need to use implements for hunting and defence engendered yet another need: when the necessary "tools" could not be found in the locality inhabited by a herd of man's ancestors, these had to be made. Additional instruments—stone knives—were used for that purpose. A whole chain of production operations gradually took shape: making a stone knife, making a spear with the help of that knife, and so on. With the development of that tendency and of man's animal ancestors themselves, reflex actions gradually evolved into conscious activity, aimed at changing the surrounding reality with the help of specially made tools.

The transition from use of objects as tools to tool-making and to the production of objects and means of consumption with the help of tools was of crucial importance in the formation of man. It was a transition to a qualitatively new mode of vital activity, to a higher, specifically human type of behaviour, to the formation of the human consciousness.

It was labour that imparted specifically human attributes to the body and the brain, to the reflective apparatus as a whole. The forefeet, no longer used for walking, developed into hands, the main organ of cognition and transformation of the world. The body straightened and acquired a much greater capacity for diverse and coordinated action. The brain not only increased in

weight and size, but underwent internal structural changes.

Researchers have now finally established the dependence of the development of man's consciousness on the increase in brain weight and size. Thus, the largest brain of the largest ape is no more than 600 cubic centimetres in volume, while man's most ancient ancestor, Pithecanthropus (or Java man) had a brain volume of 800-900 cu cm, the late Sinanthropus (or Peking man, marked by primitive speech) as much as 1,000-1,200 cu cm, and Neanderthal man, who lived 300,000 years ago, 1,300-1,600 cu cm. The average brain of Cro-Magnon man, the modern type of man, has a volume of 1,400 cu cm, or a forty-sixth part of his body weight. The expansion of sensory * and motor ** areas within the brain, and also of cortical association *** zones was of special significance in the structural development of the brain. That was exceptionally important for the formation of higher forms of analysis and synthesis, a new level of generalising abilities.

Another major circumstance in the formation of man was that success in hunting large animals mostly depended on how organised was the action of man's ancestors. The best results could

* Sensory from Latin *sensus*: feeling, perception.

** Motor from Latin *motor*: imparting motion.

*** Association -from Latin *associare*: to unite.

be achieved when some of them roused the animal, others brought it to bay, and still others killed it, using spears, clubs and other tools. So, in the course of collective hunting each individual had to take a special place and perform definite functions. As a result, man learned to single himself out as a special individual acting in a collective.

The new type of activity (production) and the new type of relations (relations of production) led to qualitative changes in the reflection of the surrounding world. Animals do not single themselves out from nature, while man gradually came to distinguish himself from the surrounding objects and from other people. He also developed a special ability: the ability to set himself goals in a conscious way. Awareness of the surrounding world, awareness of oneself as an individual person and goal-setting—such are the specific features of the form of reflection that emerged in the course of man's formation. These features of the human consciousness were conditioned by the material relations taking shape in the development of production.

The emergence, existence and development of these relations called for concerted action by individuals, and that made it necessary for them to specify goals and tasks, distribute functions, and exchange information. "In short, men in the making arrived at the point where *they had some-*

thing to say to each other.”¹ In response to the new need, language took shape as a means of communication. Men in the making began to designate separate phenomena and their properties, objects and actions with definite sounds and symbols, using these to convey information to each other. The words which they used to denote objects and phenomena substituted for the latter, and men responded to them just as to the objects and phenomena for which they stood.

Reflection of reality with the help of words is a specifically human form of reflection. Animals reflect the surrounding reality through the signals of that reality itself. Such a system of signals is common to animals and man, and is known as the first signal system. The signal system consisting of words, which symbolise real objects and phenomena, is called the second signal system.

So, consciousness arose from the needs of production and social life as a whole. Outside the society and social relations, consciousness can never emerge or exist. From beginning to end, it is a social product, the result of labour and joint human activity.

That conclusion of dialectical materialism is borne out by science. And it is valid not only for

¹ Frederick Engels, *Dialectics of Nature*, p. 173.

the formation of the society as a whole, but also for the formation of an individual human consciousness. A new-born baby is a being without consciousness, and acquires a consciousness only gradually. A baby growing up without contact with other people will never develop a consciousness at all. The historical record shows that consciousness does not develop outside the human society. Thus, on October 21, 1920, two girls of about two and nine years of age were found living in a wolf pack in a forest near the Indian village of Godamuri. They were called Amala and Kamala. Amala died shortly afterwards, and Kamala lived to be eighteen. But in spite of special educational measures, she never became quite human. Speech, thinking, and human modes of activity remained beyond her reach. In a similar case, a 12-year-old French boy Victor, who was found in a forest in 1797 and lived to be 40 years of age, could not learn to speak in full measure, was barely taught to walk upright and dropped to his hands and knees at the least sign of danger. In spite of all the efforts, he could not learn to read or write.

The formation of man and the human consciousness presupposes the individual's involvement in social life from his earliest days.

4. The Essence of Consciousness

So, we find that consciousness first emerged as man's ancestor became aware of his own being, his personal existence, as he singled himself out from the external world and determined his attitude to it. With his emergent consciousness, primitive man noticed for the first time that he existed and how he existed. He began to realise what was going on around him. In other words, consciousness is an awareness, a knowledge of what is going on around one. Such an awareness is peculiar only to the human form of reflection.

In speaking of consciousness as the highest and purely human form of reflection, one should note its main specific features.

First, man reflects the world as a unity of its external and internal aspects, not only in the form of sensory images, but also in the form of laws and categories, artistic images, and so on, through conceptual, abstract thought and speech.

Second, the human consciousness can foresee the consequences of its own activity, the nature and direction of natural and social processes. This is initially achieved on the basis of life experience, and at the present level of social development, largely on the basis of a knowledge of natural and social laws.

Third, consciousness is capable of setting goals,

formulating ideals, and projecting the ideal results of future activity. Goal-setting is a necessary prerequisite of conscious, planned activity.

Fourth, the human consciousness appraises reality. In forming goals, interests and ideals, and in taking and carrying out decisions, man is not only guided by knowledge, but also appraises the phenomenon in question depending on the historically arisen personal and social requirements and interests as necessary or unnecessary, useful or useless, favourable or harmful.

Fifth, the human consciousness is characterised by self-consciousness, reflecting not only the external, but also the inner world, and making self-consciousness yet another object of cognition.

Sixth, consciousness is creative, actively influencing the surrounding world. The function of man's consciousness is to gain a knowledge of the world in order to find the most effective ways of changing not only the actual, but also the possible conditions of social life in the interests of man, in order to meet the requirements, both of the individual and the society. Natural conditions, Engels wrote, cannot satisfy man, whose "normal state is one appropriate to his consciousness, *one that has to be created by himself*".¹

The activity of the human consciousness manifests itself in the functions it performs in the sys-

¹ Frederick Engels, *Dialectics of Nature*, p. 195.

tem of practical cognition and transformation of reality. The most important of these are the cognitive, constructive and regulative functions.

First, the cognitive function. Reflecting the world with his consciousness, the individual receives new information about it. That new information is superimposed on the information drawn from past experience, on the individual's earlier notions about the subject. These notions are always somewhat imprecise, incomplete and inexhaustive. That leads to a contradiction, whose solution calls for comparison, verification and inquiry. As a result, the individual gains new knowledge about the subject.

The active role of the consciousness is most fully expressed in its constructive function, in pre-emptive reflection and purposeful transformation of reality. As a result, man creates new forms which do not exist in the natural world.

Orientation towards the future, the cognitive, constructive and prognosticating role of consciousness is extremely important in building the new society, a society of people's democracy and scientific socialism. The Marxist-Leninist parties attach great importance to scientific prognostication and planning in all spheres of social life. Bearing in mind the vast organisational and transformative importance of consciousness in social life, they see their crucial tasks in educating

their cadres and the working masses on the principles of Marxism-Leninism. They seek to educate people so as to enable them to see, understand and correctly appraise the course and perspectives of world development and the events in the country, to fight for a new life and build it in a conscious way.

The regulative function of consciousness has two forms: motivational and executive. As ideas acquire the power of motivations, the individual takes conscious and purposeful action in accordance with his convictions. Thus, numerous revolutionary-minded sons and daughters of the people have sacrificed their lives in the struggle for the freedom and independence of their country and people. Executive regulation enables the individual to match his goal with realistic means for its attainment.

The activity of the human consciousness makes it necessary to influence its formation on scientific lines. The world is created, changed and transformed by conscious human beings, who live in a definite epoch and in a system of definite social relations. The degree to which they can transform the world and alter the material conditions of their own existence depends both on the social relations they inherit from past generations and on their own practical activity, on the development level of their own consciousness. That is why in their struggle to change social relations,

Marxist-Leninist parties devote much attention to the formation of a scientific world outlook among the people, to their revolutionary education into conscious and active fighters for people's democracy, peace and socialism.

5. The Unity of Consciousness and Language

Just as any other phenomenon, consciousness has its own modes and forms of being, outside which it cannot exist. Language is such a mode of its being.

Ever since its emergence, consciousness has existed in the material integument of language. Through language, it is actualised and becomes accessible for perception and apprehension by other people. Marx and Engels wrote: "Man also possesses 'consciousness'. But even from the outset this is not 'pure' consciousness. The 'mind' is from the outset afflicted with the curse of being 'burdened' with matter, which here makes its appearance in the form of agitated layers of air, sounds, in short, of language. Language is as old as consciousness, language *is* practical, real consciousness that exists for other men as well, and only therefore does it also exist for me; language, like consciousness, only arises from the need, the

necessity, of intercourse with other men.”¹

Both his own and other people's thoughts become accessible to man only through words, through language. Language and consciousness cannot exist in isolation from each other, and the fact that children who have for some reason not learnt any language do not have a consciousness is graphic proof of that.

Language exists in the form of an integral and historically established system of symbols. That system has a specific structure and is governed by certain objective laws of development. This shows that language has some independence.

But just as consciousness, language is socially conditioned. It took shape simultaneously with consciousness as an instrument of human communication and knowledge, an instrument of man's social and labour activity. Whereas consciousness reflects reality, language designates it, and expresses ideas. In language and speech, human ideas, notions and feelings are given a material form perceptible for the senses, and are thus put within the reach of other people. That is why speech is a powerful instrument enabling some individuals to influence others, and the society to influence the individual.

In the formation and development of con-

¹ Karl Marx, Frederick Engels, *Collected Works*, Vol. 5, pp. 43-44.

sciousness, language performs several functions.

First, a designative function. People use words to designate surrounding objects and phenomena, their connections and relations, their own subjective states, their attitude to the world, and so on. The word is a vehicle of human knowledge about the world, an intermediary between ideas and things, for it simultaneously reflects and designates the object. It records the abstractive activity of thinking.

The word in a way substitutes for the object, representing it in the human consciousness. It makes possible the process of thinking itself, the mental manipulation of ideal images symbolising real things, their properties and relations.

Second, a generalising function. Words offer the possibility of a generalised reflection of reality in the consciousness. "Every word (speech) already *universalises*," Lenin wrote.¹ Take, for instance, the word "matter". It does not express anything individual (which is expressed through a system of words and concepts), but embraces that which is characteristic of everything, which exists objectively and independently of consciousness. In this way, language and speech create the possibility of an abbreviated ideal reproduction of reality and, consequently, the possibility of compact perception, storage, use and transfer of

¹ V. I. Lenin, *Collected Works*, Vol. 38, 1976, p. 272.

knowledge. In that sense, language is the greatest accumulator of mankind's knowledge. Its history is a history of man's cognition of the world.

Third, a communicative function. Language is a means of communication among individuals, peoples, past and future generations. That function of language was particularly enhanced with the appearance of writing. Since then, mankind's social and labour experience, cognitive and aesthetic activity, and achievements in the sphere of material and spiritual culture have been accumulated and recorded with particular effectiveness. In our day, the communicative function of language in the cognition and revolutionary transformation of the world has further increased, as millions of people are being involved in the struggle for peace, international detente, democracy, progress, socialism and communism. That is due to closer economic, scientific, technical and cultural ties among nations, to the natural course of the present-day scientific and technical revolution.

Language is not only an instrument of knowledge, but also an instrument for the practical transformation of the world. That is why, apart from these three functions and on their basis, it also performs the functions of expression and influence.

Man is in various ways connected with natural and social processes and events, for these affect his

interests and needs. That is why he always appraises these processes and events, adopting a definite emotional attitude to them. That emotional attitude, imprinted in language, embodies the function of expression.

In his speech, man always to some extent, consciously or unconsciously, addresses either himself or other people. It always contains proposals, questions, tasks, complaints, requests, orders, etc., which in one way or another induce people to action. Such is the influence function.

All the functions of language are manifested in unity and interconnection with consciousness. Detached from consciousness, language is meaningless or nonexistent. In their interconnection, consciousness and language develop in the course of the society's historical development.

Topic 6.

DIALECTICS AS A DOCTRINE OF UNIVERSAL CONNECTION AND DEVELOPMENT

1. Materialist Dialectics as a Science

The concept of “dialectics” is used in the Marxist-Leninist philosophy to mean the theory and method of cognition and transformation of reality. Materialist dialectics and philosophical materialism are the two interpenetrating aspects of the integral philosophical doctrine of Marxism-Leninism.

Philosophical materialism deals with general questions of world outlook, with the nature of the surrounding world. Materialist dialectics answers the question of what is happening to the world, of whether it originated or exists eternally, whether it is immutable or keeps changing and developing.

Let us first look at dialectics as a science.

It was Engels who formulated two well-known definitions of dialectics. In *Dialectics of Nature*, he defines it as the science of connections, and in *Anti-Dühring*, as the science of the universal laws of all motion and development.¹ Engels considered the principle of universal connection in close unity with the principle of motion and development, for connection in the material world means interaction, and interaction is motion and development. "The whole of nature accessible to us forms a system, an interconnected totality of bodies, and by bodies we understand here all material existences... In the fact that these bodies are interconnected is already included that they react on one another, and it is precisely this mutual reaction that constitutes motion."² That is why when Engels defined dialectics as the science of universal connections, he also means the universal laws of interaction conditioned by these connections, the laws of motion and development. At the same time, in defining dialectics as the science of the universal laws of all motion, Engels also implies universal connections, for there are no connections without interaction or motion, just as there is no motion without connections or interaction.

In full agreement with Engels, Lenin described

¹ See Frederick Engels, *Anti-Dühring*, p. 168.

² Frederick Engels, *Dialectics of Nature*, p. 70.

dialectics as the richest doctrine of development.¹

Marxist dialectics starts out from the material unity of the world and the objectivity of all forms of motion and development of matter. Its materialist nature is most pronounced in the doctrine of objective and subjective dialectics. Engels wrote: "Dialectics, so-called *objective* dialectics, prevails throughout nature, and so-called subjective dialectics, dialectical thought, is only the reflection of the motion ... which asserts itself everywhere in nature..."²

Consequently, objective dialectics is motion and development in the material world itself as in an integral, interconnected whole. Subjective dialectics, or dialectical thinking, is the motion and development of thoughts, concepts, etc., which reflect objective dialectics in the human consciousness.

Being a reflection of objective dialectics, subjective dialectics in its content coincides with the former. Both are governed by the same universal laws. These universal laws of being and thinking constitute "two classes of laws which we can separate from each other at most only in thought but not in reality".³

The subject of dialectics as a science is the uni-

¹ See V. I. Lenin, *Collected Works*, Vol. 21, 1980, pp. 54-55.

² Frederick Engels, *Dialectics of Nature*, p. 211.

³ Frederick Engels, *Anti-Dühring*, p. 137.

versal objective principles of existence and the laws of development of the material world. Objective dialectics constitutes the content of subjective dialectics. That is why its basic laws and categories are simultaneously laws and categories both of being and cognition. "This implies that its laws must be valid just as much for motion in nature and human history as for the motion of thought."¹

On the strength of that, Lenin draws the exceptionally important world-outlook conclusion that dialectics, logic and the theory of knowledge in the Marxist philosophy coincide. What this means is that the most general laws of the development of nature, the society and thinking (cognition) are the same. These are the laws of materialist dialectics. That is why materialist dialectics is the logic and theory of knowledge of the Marxist-Leninist philosophy. "Dialectics," Lenin wrote, "is the theory of knowledge of ... Marxism."²

Materialist dialectics as a general theory of development is of exceptional importance in terms of world outlook. Without it, one can never present a modern, integral and scientific picture of the world. At the same time, it is an indispensable instrument of the scientific cognition and

¹ Frederick Engels, *Dialectics of Nature*, p. 267.

² V. I. Lenin, *Collected Works*, Vol. 38, p. 360.

revolutionary transformation of the world. That is why Lenin described dialectics as the "soul" of Marxism.

What are the reasons for regarding materialist dialectics as the "soul" of Marxism-Leninism in its totality and of the Marxist-Leninist philosophy in particular?

First, materialist dialectics is revolutionary in essence and content. It sees everything in motion, change and development. In this way, it brings out the historically transient nature of all phenomena in the world, all forms of social relations in particular. Materialist dialectics, Marx wrote, "is a scandal and abomination to bourgeoisdom and its doctrinaire professors, because it includes in its comprehension and affirmative recognition of the existing state of things, at the same time also, the recognition of the negation of that state, of its inevitable breaking up, ... it lets nothing impose upon it, and is in its essence critical and revolutionary."¹

Second, materialist dialectics not only explains the general direction of social progress and the logic of transition from capitalism (or even from precapitalist forms of development) to socialism and communism. It substantiates the proletariat's historic mission, its progressive ideals, and its invincible striving to abolish the exploitive system

¹ Karl Marx. *Capital*. Vol. I, p. 29.

through socialist revolution. Since materialist dialectics brings out the general laws of cognition and the revolutionary activity of the working class, it provides a theoretical groundwork for the strategy and tactics of its Marxist-Leninist parties. "The fundamental task of proletarian tactics," Lenin wrote, "was defined by Marx in strict conformity with all the postulates of his materialist-dialectical *Weltanschauung*."¹

Third, in explaining the universal laws of the development of nature, the society and thought, of mankind's entire material and spiritual life, materialist dialectics makes it possible to formulate on scientific lines the socio-political ideals, goals and interests of the working class and all the other working people. It is an abundant source of the masses' creative energy, directly influencing the scale, pace and orientation of their revolutionary-transformative activity.

Fourth, materialist dialectics performs a crucial world-outlook and methodological role in the cognition of natural and social phenomena, the laws of struggle for the revolutionary transformation of the society, and the laws of building a society of social justice. In describing the importance of materialist dialectics and its role in formulating the basic propositions of Marxism, Lenin wrote: "The application of materialist dia-

¹ V. I. Lenin, *Collected Works*, Vol. 21, p. 75.

lectics to the reshaping of all political economy from its foundations up, its application to history, natural science, philosophy and to the policy and tactics of the working class—that was what interested Marx and Engels most of all, that was where they contributed what was most essential and new, and that was what constituted the masterly advance they made in the history of revolutionary thought.”¹

2. The Basic Principles of Dialectics

In defining dialectics as the science of universal connections and universal laws of the development of the material world and the human consciousness reflecting that world, we start from the principles of connection and development.

- a) *The principle of universal connection. Connection and interaction*

The universal connection of phenomena is the most general uniformity of the material world. It stems from the common material nature of all objects, processes and phenomena of the world. Universal here means that the emergence, change, development and transition to a qualita-

¹ V. I. Lenin, *Collected Works*, Vol. 19, 1977, p. 554.

tively new state of any objects or phenomena is impossible in isolation, and occurs only in interconnection and interdependence with other phenomena and material systems. Any single object or system is linked with other objects or systems through a ramified network of relations, and changes in some of these entail changes in others.

The concept of universal connection embraces all types and forms of relations. Interaction is one of the universal features of that connection. Interaction means all types, modes and forms in which objects and processes influence each other. When objects interact, this always leads to their mutual change and motion. The webwork of innumerable interactions between real objects amounts in its totality to the overall world process of development. Engels emphasised: "In the fact that these bodies are interconnected is already included that they react on one another, and it is precisely this mutual reaction that constitutes motion."¹

Thus, the Sun's interaction with the planets within the Solar System inevitably results in their movement around the Sun. The interaction between animate and inanimate nature changes not only the plants and animals themselves, but also their environment. In the course of material production, men interact with nature, so altering

¹ Frederick Engels, *Dialectics of Nature*, p. 70.

both nature and themselves.

The things and phenomena of the objective world not only interact, but mutually condition each other. Such interconditionality (or interdependence) of objects and phenomena means that in the course of development they determine each other and depend on each other.

Interdependence is to be found everywhere in nature, social life and the human consciousness. Modern physics, for instance, has established the interdependence of the mass of the electron and the speed of its motion. In social life, material social relations are reflected in the minds of individuals, conditioning their ideology, which in turn exerts an active feedback influence. In the human consciousness, there is a close interdependence between sensations and concepts.

The principle of universal connection and interaction is of great importance in terms of world outlook, giving a deeper understanding of the material unity of the world, the motion of matter as self-motion.

The forms of universal connection and interaction are also infinitely diverse. The nature and diversity of the forms of connection are determined by the unity and integrity of the objective world and by the diversity of its things and phenomena. Every separate thing or phenomenon of the material world has numerous diverse aspects and properties, and consequently also

numerous interrelationships with other things and phenomena and with the rest of the world as a whole. At the same time, they are in constant motion, change and development. In the course of development, their interrelationships with each other and with the rest of the world keep changing, so that the forms of reality's universal connection are extremely mobile, as well as complex and diverse.

All the categories and laws of dialectics express in one way or another various connections and relations of reality. It is within their system that the most general and abstract concept of universal connection is concretised. The diverse forms of that connection are not isolated, but constitute an integral system.

The forms of interaction are equally diverse. The most important of these are mechanical, physical, chemical, biological and social. Each of these forms includes numerous interactions and simultaneously enters into complex and diverse interactions with other forms.

The concept of universal connection and interaction is of exceptional importance for human cognition and practical activity. Actually, the entire history of man's cognition of the world is a history of his penetration into the mysteries of the infinitely diverse forms of universal connection and interaction, a history of their practical use.

b) *The principle of development*

The second basic principle of dialectics is that of development. What it means is that the world is seen not "as a complex of ready-made *things*, but as a complex of *processes*, in which the things apparently stable... go through an uninterrupted change of coming into being and passing away, in which, in spite of all seeming accidentality and of all temporary retrogression, a progressive development asserts itself in the end..."¹

The changes going on in the world differ in character and direction. Some of these constitute the movement of bodies in relation to each other, others are changes in the properties, structure and function of an object. Some changes are reversible (water-ice-water), and others irreversible (embryo-organism). Some processes mean a transition from lower to higher and from simple to complex, and others, from higher to lower, and from complex to simple. Concepts of "development", "progress" and "regress" are used to designate various types of change.

Development is a type of motion which involves changes in the inner structure of an object or process. When we say that a system develops, we mean an internal, qualitative transfor-

¹ Karl Marx, Frederick Engels, *Selected Works* in three volumes, Vol. 3, pp. 362-63.

mation of its structure. Structural transformations are irreversible and have a clear-cut direction.

Ascendant development towards a higher type of organisation is known as progress, and changes in the opposite direction, as regress. Development is a complex dialectical interaction of progress and regress. Engels wrote: "An exact representation of the universe, of its evolution, of the development of mankind, and of the reflection of this evolution in the minds of men, can ... only be obtained by the methods of dialectics with its constant regard to the innumerable actions and reactions of life and death, of progressive or retrogressive changes."¹

Consequently, the world's motion as a whole cannot be described as development in one direction: either ascendant (progressive) or descendant (regressive). One can speak of change in a certain direction only with regard to individual systems and processes. The correlation between progress and regress differs from one sphere of the material world to another. In inorganic nature, "neutral" processes prevail (involving both progressive and regressive changes). In animate, organic nature, the main tendency is progressive: towards a more complex internal organisation, structure and functions of living beings. But here,

¹ Frederick Engels, *Anti-Duhring*, p. 33.

too, progress is combined with elements of regress.

The society develops along the way of progress, although the progress is not straightforward. History has known many reversals and sharp relapses. Nevertheless, its general direction is ascendant and progressive. "...All successive historical systems are only transitory stages in the endless course of development of human society from the lower to the higher."¹ The highest stage of historical progress, towards which all peoples are advancing, is the communist society.

Although the fact that motion and development are universal is indisputable, there are two approaches to an understanding of the world process, two conceptions of development: metaphysical and dialectical.

The dialectical conception of development, Lenin noted, is the richest one. It answers the fundamental questions of world outlook: on the source of motion and development, their nature, mechanism, form and direction.

The metaphysical conception misunderstands the source of motion and development, sees development as a simple increase or decrease in that which already exists, absolutises the element of stability, fails to understand the contradictory

¹ Karl Marx and Frederick Engels, *Selected Works* in three volumes, Vol. 3, p. 339.

nature of motion and development, and so on.

Lenin showed the antithesis between the dialectical and metaphysical conceptions. He wrote: "The two basic ... conceptions of development (evolution) are: development as decrease and increase, as repetition, *and* development as a unity of opposites (the division of a unity into mutually exclusive opposites and their reciprocal relation).

"In the first conception of motion, *self*-movement, its *driving* force, its source, its motive, remains in the shade (or this source is made *external*—God, subject, etc.). In the second conception the chief attention is directed precisely to knowledge of the *source* of '*self*'-movement.

"The first conception is lifeless, pale and dry. The second is living."¹

The metaphysical conception of development expounded by present-day bourgeois philosophy has a definite class purpose, seeking to emasculate the revolutionary content of dialectics, to present development in such a way as to discard or distort the idea of social progress, to show that the exploitive society is eternal and that class struggle is useless, and to disprove the Marxist-Leninist doctrine of mankind's inevitable transition to socialism and communism.

Materialist dialectics is essentially revolution-

¹ V. I. Lenin, *Collected Works*, Vol. 38. p. 358.

ary. It teaches people to see all processes and phenomena of the surrounding world in motion and development. In its most profound and ample reflection of the actual processes going on in nature and the society, it is a powerful instrument for their scientific cognition and revolutionary transformation.

3. Materialist Dialectics as a Universal Method of Cognition and Transformation of Reality

Any science or knowledge, Marx noted, is not only the result of past cognition, but also an instrument for discovering new truths and attaining a fuller and deeper reflection of reality. This means that any human knowledge, if used for acquiring new knowledge, is a method for acquiring it. One could say in this sense that any general or particular theory is also a corresponding general or particular method of cognition and activity. The opposite is equally true: any method has a theoretical aspect and is of theoretical importance.

Dialectics as a science is also a theory. It is a system of the most general laws of the development of the world and human knowledge. Hence, it is a mental model of the processes of change and

development unfolding in the objective world.

As a scientifically generalised theoretical model of what is common to all processes of motion and development in the world, it is also the most general, universal method of cognition and practical activity, making it possible to grasp and understand the most general tendency, the common logic of various processes.

That is why a knowledge of dialectics and an ability to use it are an earnest of success in cognition and practical activity. A skillful combination of dialectics with concrete scientific laws is a reliable instrument of struggle against any manifestations of the metaphysical method of thinking. Any departure from dialectics is bound to lead to mistakes in theory and practice.

Correct use of the dialectico-materialist method calls for the observance of a set of demands.

In formulating these demands, Lenin urged "*objectivity* of consideration (not examples, not divergences, but the Thing-in-itself)". He wrote: "Firstly, if we are to have a true knowledge of an object we must look at and examine all its facets, its connections and 'mediacies'. That is something we cannot ever hope to achieve completely, but the rule of comprehensiveness is a safeguard against mistakes and rigidity. Secondly, dialectical logic requires that an object should be taken in development, in change, in

'self-movement' (as Hegel sometimes puts it)... Thirdly, a full 'definition' of an object must include the whole of human experience, both as a criterion of truth and a practical indicator of its connection with human wants. Fourthly, dialectical logic holds that 'truth is always concrete, never abstract'...."¹

Consequently, the main demands are:

First, an objective approach to social processes and phenomena, which means that the latter should be studied as they really are, without any additions, simplifications or complications. Scientific objectivity implies the paramount need to study the essence of the process or phenomenon, its true nature. Theoretical knowledge is true if it is a correct reflection of the objective development of real processes and phenomena.

Objectivity means giving a truthful explanation of the essence of processes and phenomena, presenting a realistic picture of life, bringing out the main tendency of its development, and showing the forces behind that development. Since it is highly scientific, objective and truthful, materialist dialectics is extremely powerful and viable.

The propositions of materialist dialectics are true because they correspond to objective reality, to life itself. Equipping people with a knowledge

¹ V. I. Lenin, *Collected Works*, Vol. 38, p. 220; Vol. 32, 1973, p. 94.

of the laws of social development and the ways of transforming the society, materialist dialectics points out the only true way of struggle for national liberation and social emancipation, for socialism and communism. Its verity and objectivity are directed against any manifestations of subjectivism, and also against bourgeois "objectivism" as a denial of party commitment and against a revisionist understanding of "objectivism" as an argument in favour of spontaneous social development. Lenin's idea that "views on social phenomena must be based upon an inexorably objective analysis of *realities* and the real course of development"¹ is of exceptional methodological importance in this respect.

Second, materialist dialectics demands a comprehensive analysis of processes and phenomena. The need for comprehensiveness in cognition derives from the main principle of dialectics: universal connection. It presupposes a study of the whole totality of the thing's diverse connections and relations with other things. Only a comprehensive analysis of these connections and relations makes it possible to single out its basic and essential connections, properties and features. The way to understand a thing's essence is to bring out that which is basic and essential to it on the strength of a comprehensive examination. Comprehensive-

¹ V. I. Lenin, *Collected Works*, Vol. 2., 1977, p. 531.

ness also helps to expose any fake theory masquerading as Marxism-Leninism. A point to bear in mind here is that in their theory and practice present-day revisionism and dogmatism no longer simply deny the need for a comprehensive examination of processes and phenomena. Their approach is limited not because they deny objectivity and comprehensiveness, but because they give these an anti-dialectical reading. Present-day revisionists and dogmatists, on the contrary, flaunt their "comprehensive" approach to social life, claiming to analyse it in every detail. But since they interpret and use the principle of comprehensiveness in a much too "comprehensive" way, they distort its very essence. Seeking to embrace all the details, aspects and features of the process or phenomenon being examined, they overlook its essence, that which is crucial to it. Such "comprehensiveness" ultimately leads to agnosticism and an inability to pinpoint the source, bring out the forms and main tendency of the process or phenomenon under consideration. In practice, one tends to ignore the general uniformities of the revolutionary process, the laws of class struggle, the necessity of proletarian dictatorship for socialist construction, and so on.

Third, one can get at the essence of a process or phenomenon only by determining the inner sources of development, by exposing the contradictions which caused it. Reproduction of pro-

cesses and phenomena in their development is an indispensable condition of their adequate * reflection in thinking, that is, their cognition.

Discovery of the internal sources of social development is exceptionally important in the revolutionary activity of Marxist-Leninist parties, making it possible to determine the main tendencies and possible forms of social development and so to re-adjust the revolutionary-transformative activity of the society's progressive forces and the working masses.

Fourth, one should take a concrete historical approach in analysing social processes and phenomena. "The whole spirit of Marxism, its whole system, demands that each proposition should be considered (α) only historically, (β) only in connection with others, (γ) only in connection with the concrete experience of history."¹

The concrete historical approach includes the need to take into account the place and time in which the process occurs, the need "not to forget the underlying historical connection, to examine every question from the standpoint of how the given phenomenon arose in history and what were the principal stages in its development, and, from the standpoint of its development, to exam-

* From Latin *adaequatus*: equal.

¹ V. I. Lenin, *Collected Works*, Vol. 35, 1976, p. 250.

ine what it has become today".¹

The demand for a concrete and historical approach helps to see the spatial and temporal boundaries for using theoretical propositions. Theory is a generalised mental reflection of real processes and phenomena. Daily life and social practice keep raising new questions, which call for a scientific explanation. As Lenin put it, to disregard changing conditions, insist on obsolete propositions, and use these without regard for the specific historical conditions is to be "true to the letter but not to the spirit of the teaching".²

The concrete historical approach is exceptionally important for cognition and revolutionary practice because it helps to prevent a mechanical application of general conclusions to concrete phenomena without analysis, without due account for their specifics, and also to prevent a tendency to ignore general laws and principles on the plea of the specific nature of the phenomenon being examined.

Fifth, practical demands. As a condition of knowledge, these demands call for a study of reality with a view to the needs of the revolutionary-transformative, constructive activity of the masses, for an objective and scientific approach. Such an approach is an indispensable condition

¹ V. I. Lenin, *Collected Works*, Vol. 29, 1977, p. 473.

² V. I. Lenin, *Collected Works*, Vol. 6, 1977, p. 456.

for gaining a knowledge of the laws of the surrounding world and social development. Without due regard for the needs of social practice, it is impossible to determine the goals and direction of cognition in a given epoch. Without practice, one can never distinguish truth from delusion. The only way to discern the essence of deep-running economic, political and spiritual processes, to discover and overcome arising difficulties and contradictions in due time, to formulate imperative problems and find optimal ways for their solution is by taking due account of the needs of social practice, the tasks of social development.

The task of the revolutionary transformation of the world is the basis and motive force of cognition, because to change the world one should first scientifically explain it, get to know its objective laws, and act in accordance with these laws. The scientific theory was developed in response to the needs of social practice, the need of the working class—the most revolutionary class in history—for a knowledge of the essence and laws of the development and revolutionary transformation of the world. Marxism-Leninism explains the world from a scientific angle, brings out its laws, and shows the sources and tendencies of social development. Through a correct reflection of reality, the Marxist-Leninist theory makes it possible to map out the general line and perspectives of social development, to elaborate a correct policy

and put it into effect.

Sixth, in scientific cognition and practical activity it is necessary to find the main, crucial link in a chain of events, to pinpoint the main task in the whole complex of tasks.

The ability to determine the main link, the main task at every stage of social development is a necessary condition of efficiency and success in the whole of cognitive and practical activity. The main link is the decisive condition and the decisive connection, which ultimately determine the nature, pace and direction of social process. Finding that link is of great importance for the successful revolutionary activity of the masses, the struggle for peace and democracy, for socialism and communism. Lenin wrote that "it is not enough to be a revolutionary and an adherent of socialism or a Communist in general. You must be able at each particular moment to find the particular link in the chain which you must grasp with all your might in order to hold the whole chain and to prepare firmly for the transition to the next link; the order of the links, their form, the manner in which they are linked together, the way they differ from each other in the historical chain of events, are not as simple and not as meaningless as those in an ordinary chain made by a smith".¹

¹ V. I. Lenin, *Collected Works*, Vol. 27, 1977, p. 274.

Naturally, it is not easy to find the main link. The society is a complex and developing system, with numerous objective and subjective factors operating within it, and it is only through creative use of the principles and demands of materialist dialectics and Marxism-Leninism as a whole that one can duly determine the main tasks and discern the main link in the solution of political, economic and cultural problems.

A knowledge of materialist dialectics equips people with a scientific method of analysing reality, helps to discern the essence of what is going on beneath the separate events, facts and phenomena of daily life, and to act in accordance with the objective laws of social development.

Topic 7.

THE LAWS OF MATERIALIST DIALECTICS

Materialist dialectics is the doctrine of universal connection and development, and these are most fully expressed in its laws.

Law is an objective, universal, necessary and essential connection of objects and phenomena, which is marked by stability and recurrence. The laws studied by philosophy apply to all objects and phenomena of the real world.

1. The Law of Unity and Struggle of Opposites

Since ancient times, people have pondered the cause of changes in nature and the society, looking for their source and driving power.

Thinkers made various suppositions on this point, either

approaching or moving away from the truth. Thus, religion attributes the changes going on in the world to God, idealists to the operation of some universal will or supranatural absolute idea, and metaphysicians look for the source of motion and change in some external force, in an initial impulse, and so end up in idealism.

The scientific answer to the question of the cause of development given by the Marxist-Leninist philosophy is expressed in the law of the unity and struggle of opposites. Lenin called that law the essence, the core of materialist dialectics. It reveals the inner cause of development, showing that its source lies in the contradictory nature of phenomena and processes, the interaction and struggle of the opposites immanent in them.

To understand this law, one should first clear up the meaning of opposites and contradictions.

Opposites are the inner aspects, tendencies or forces of an object or phenomenon which rule each other out while simultaneously presupposing each other. The interconnection of opposites constitutes a contradiction.

A magnet is an example of opposites in inanimate nature. Its main specific feature is the presence of such mutually exclusive but closely interconnected aspects as opposite poles. No matter how one tries to separate the North pole from the South pole, that cannot be done. Even cut in two, four, eight, or more parts, the magnet will still

have the same poles.

The existence and development of living organisms are also marked by opposites. Thus, assimilation and dissimilation * are opposites. But with the disappearance of either of these, the organism is bound to die. Such properties as heredity and adaptability are also opposites. On the one hand, the organism tends to retain inherited traits, and on the other, it tends to develop new traits in accordance with the changing conditions.

In antagonistic-class societies, there are opposite classes: slave and slave-owner in the slaveholding society; peasant and feudal lord under feudalism; proletarian and bourgeois under capitalism.

Contradictory aspects also mark cognition, the process of thinking.

So, all phenomena and processes of reality have opposite aspects. Everything is shot through with contradiction.

How do the opposites within phenomena and objects interact? This interaction includes both

* Assimilation is the formation in the body of complex substances from simpler ones, and dissimilation is the break down of such complex substances within the body, in the course of which energy is released for use in vital processes; assimilation and dissimilation constitute the metabolic exchange of substances within the body.

their unity and their struggle.

The unity of opposites means that they cannot exist without each other and are mutually dependent. Another manifestation of their unity is that in definite conditions they are balanced out. Such an equilibrium, when neither of the two opposite sides prevails, marks a stage of stability in the development of a thing. The state of equilibrium, however, is only relative and temporary. In the course of development, the equilibrium is upset, which ultimately leads to the disappearance of one thing and the emergence of another, with a new unity of opposites. In the body of a young animal, for instance, assimilation prevails; in a other one, assimilation and dissimilation are balanced out; and in an ageing one, dissimilation becomes predominant.

While being in unity, the opposites are at the same time in "struggle" with each other, that is, they mutually negate and rule each other out. Whereas the unity of opposites is relative, their struggle, Lenin said, is just as absolute and permanent as motion and development. Indeed, the very existence of contradictions implies the reaction of one opposite upon another and mutual changes as a result.

Thus, the interplay of such opposite aspects of social life as production and consumption inevitably leads to changes in both of these, and then in the society as a whole. The society's needs

influence production and effect changes in it. Taking these needs into account, production develops in a corresponding direction. In the period of colonial dependence, for instance, production was largely oriented to meet the requirements of the metropolitan countries, while the rise to national independence makes it necessary to re-orient the whole of social production towards meeting the requirements of national development. And socialist transformations in the society put forward the clear-cut task of orienting production towards the needs and requirements of the working masses.

Such a re-orientation of the whole of social production towards the needs of the people inevitably leads to a break-up of the old economic structures and to the emergence and strengthening of new ones, primarily oriented towards contacts with the socialist countries, the natural allies of the newly independent states.

In seeking to meet the needs of the people, production is perfected and further developed, and the needs change and develop accordingly. The altered needs put new tasks before production, which changes in response, and so on without end. In other words, the interaction of opposites leads to change and transition to a new qualitative state. This shows that contradictions are the source of the motion and development of objects and phenomena.

So, objects and phenomena are characterised by opposites which are in unity. At the same time, they not merely coexist, but are in a state of constant contradiction and mutual struggle. The struggle of opposites constitutes the inner content, the source of the development of reality.

The contradictions in the world are numerous and diverse. People come across them in daily life and examine them in the course of scientific research. The Marxist-Leninist philosophy studies the most general contradictions. Among the more important of these are: internal and external, antagonistic and non-antagonistic, basic and non-basic.

Internal contradictions arise between opposite aspects of one and the same object or phenomenon, while external contradictions arise between a given object or phenomenon and other objects or phenomena.

Internal contradictions are of decisive importance in the development of any object or phenomenon, for they are connected with its content, its essence, and are pivotal to its change and development. Thus, the internal contradictions of any antagonistic society are those between the exploiters and the exploited, which reflect the essence and nature of any antagonistic society.

External contradictions affect the development of objects and phenomena, often exerting a considerable influence on the resolution of inter-

nal contradictions. That is why they should be taken into account in the study of various development processes.

The experience of the socialist countries shows that successful socialist construction involves resolution of internal contradictions, the most important of which are those between the working people and the overthrown exploiter classes. External contradictions—those between socialism and capitalism—also influence the course of socialist construction, but their resolution mostly depends on the internal development of socialist and capitalist countries.

At the same time, one should bear in mind that such a division of contradictions into internal and external is only relative, for while the contradictions between the two world systems are external for each of these, for mankind as a whole they are internal.

The internal contradiction which plays the decisive role in the development of an object or phenomenon is called basic. It relates to the essence of that object or phenomenon, whose other contradictions and overall development depend on the basic contradiction. Thus, the basic contradiction of capitalism is that between the social nature of production and the private capitalist form of appropriation. It determines all of capitalism's major contradictions: between the proletariat and the bourgeoisie, between the

whole nation and a handful of monopolists, between production and consumption, etc.

The basic contradiction of our epoch is that between socialism and capitalism, and the course of mankind's development depends on its evolution and resolution. Socialism is the ascendant aspect of that contradiction, and it is being resolved in favour of socialism and communism.

The proposition on the basic contradiction is very important, because to bring out that contradiction in any process is to show the essence of that process.

In social life, contradictions can be antagonistic and non-antagonistic. What makes contradictions antagonistic is the society's division into classes with incompatible interests, a division which stems from private property in the means of production. Antagonistic contradictions cannot be resolved in the conditions of the social system which engendered them. They can only be resolved through class struggle and social revolution, which abolishes the old social system and establishes a new one. Such contradictions are characteristic of slave-holding, feudal and capitalist societies. Thus, as the basic contradiction of capitalism develops, it leads capitalism to its inevitable downfall.

Non-antagonistic contradictions appear when different social groups in a society have common vital interests. Under capitalism, for instance,

contradictions between the peasants and the working class are not antagonistic. The peasants have private property: land, cattle and farming implements, and they seek to retain and increase that property. Workers, on the other hand, have no private property and are interested in abolishing such property altogether. Hence a certain contradiction between the interests of the peasants and those of the workers. On the main point, however, the interests of these social groups coincide, for both are exploited by the bourgeoisie. That enables the working class to win over the peasantry to its side in the struggle against capitalism. In the course of socialist construction, the contradictions between them are eliminated once and for all.

Socialist development is marked by non-antagonistic contradictions. All classes, social groups and individuals in the socialist society have the same fundamental economic interests and politico-moral principles. An overwhelming majority of the people are on the side of the new and, combatting all that is outdated and obsolete, strive towards a common goal. As a result, new modes and forms of exposing and resolving contradictions arise under socialism. Thus, contradictions are resolved through organised efforts of the whole people and operation of the society's new motive forces, like socio-political and ideological unity, strengthening legality, socialist patriotism,

criticism and self-criticism. In contrast to earlier formations, where contradictions came to light and were resolved spontaneously, under socialism they are brought out and resolved through the conscious activity of the people, guided by their Marxist-Leninist party, whose policy is based on a knowledge of social laws.

So, the law of the unity and struggle of opposites expresses the essence of all motion and development and shows that these occur in the course of interaction between internal opposites. This interaction is the inner source of motion and the development of all processes and phenomena.

In analysing an object or phenomenon, one should take its contradictions as a point of departure and regard it as a unity of opposite aspects, properties and tendencies, seeking to elucidate their interconnections. In each object and phenomenon, the important thing is not to see either its positive or its negative side alone, either the new or the old, or even both in isolation from each other, but to detect their unity, their interrelation and contradictory interaction. Such an examination of objects and phenomena is the only way to get at their essence. That is why if one is to analyse phenomena in their development, in accordance with the demands of dialectics, one should look at them from the standpoint of the unity and struggle of the opposites intrinsic to them. "The condition for the knowledge of all

processes of the world in their 'self-movement', in their spontaneous development, in their real life, is the knowledge of them as a unity of opposites. Development is the 'struggle' of opposites."¹

Detection of contradictions in the phenomena being examined helps to uncover not only the motive forces behind these phenomena, but also the laws of their development. This is because the specific contradictions of any phenomenon, which constitute its main content and source of motion, are connected with the main laws of its development. This means that in order to bring out the essence of a phenomenon and the main laws of its development, one should bring out its immanent contradictions, their system and interconnection, and to pinpoint the basic contradiction operating in the given conditions, at the given stage of development. "Dialectics in the proper sense," Lenin wrote, "is the study of contradiction *in the very essence of objects*."²

One should never ignore the contradictions immanent in objects and phenomena, but should seek to expose and overcome them. Thus, a knowledge of the contradictions of capitalism enables the working class and all the other working people to understand the ways of resolving them and to choose the forms and methods of struggle.

¹ V. I. Lenin, *Collected Works*, Vol. 38, p. 358.

² *Ibid.*, pp. 251-52.

In the socialist society, which develops by overcoming its non-antagonistic contradictions, one should not close one's eyes to any contradictions that may emerge. The important thing is to detect these contradictions in due time and prevent their aggravation.

Since contradictions and the ways of their resolution are diverse, it is important skilfully to identify the specifics of the contradictions that arise in practice and find the optimal ways of their resolution in the given conditions.

2. The Law of the Transformation of Quantity into Quality

The law of the transformation of quantity into quality shows the way in which development occurs, the mechanism of that process. It expresses the interconnection of such opposites as the quantitative and qualitative aspects of things and processes. To understand this law, one should first elucidate the meaning of quality and quantity.

We are surrounded by innumerable objects and phenomena. These are in constant motion and change, but nevertheless retain something specific, something that is peculiar to each of them and distinguishes them from each other.

Thus, animate nature differs from inanimate nature, there are different species of plants and animals, and man and the society differ in various epochs. At the same time, all things have something in common and are similar in some respects. Both animate and inanimate nature are material. All species of plants and animals have the same vital properties. Social development is governed by objective laws, and so on.

The distinctions and similarities between things are expressed in the concept of quality. Quality is the totality of essential features expressing the nature and specifics of a thing. Quality points to the thing's relative stability and determinacy. This determinacy is connected with the thing's existence. Any change in the thing's quality is a change of the thing itself. Thus, cessation of metabolism in a living organism means its death and destruction, an end of the organism's existence as such.

Qualities belong to things and change together with changes in the latter. To gain an in-depth knowledge of a thing and understand its essence, one should separate it from other things, establish the similarities and distinctions between them, and classify their properties. Quality manifests itself through properties. Property is that which distinguishes one thing from others or points to its similarity with them.

Each thing has numerous properties, and the

change or disappearance of some of them does not as yet alter the thing itself. Thus, colour is not essential to petrol, which can gain or lose it without ceasing to be petrol. The property of combustibility, on the other hand, is essential to it, and if it loses that property in its interaction with some chemical element, its quality changes accordingly. Once petrol has lost its quality, it ceases to be fuel.

All objects and phenomena of the surrounding world have many qualities, so that it is necessary to distinguish between the basic and non-basic qualities of the object or phenomenon being examined. Thus, in performing various labour operations, an individual displays his properties as a working person. In this context, he can be an unskilled worker, fitter, draftsman, doctor, engineer, executive and so on. In other relationships, the same person displays different properties. Thus, he is a son with regard to his parents, a husband to his wife, and a father to his children. If he joins a party based on the principles of Marxism-Leninism, having reached a high level of ideological and political maturity, he becomes an active fighter for the revolutionary transformation of the society, for socialism.

But alongside properties which manifest themselves in some relationships and disappear in others, there are properties which are present at any time. The totality of these properties is what

constitutes the basic quality. The basic quality of a thing emerges with the emergence of the thing itself and changes only as the latter undergoes a change. The basic quality of a human being comprises, for instance, such properties as consciousness, a capacity to change the surrounding reality in a purposeful way and create material values, and a possibility of existing solely within the society, that is, together with other people.

Apart from quality, things and processes are also characterised by a definite quantity.

Quantity is a determinacy which characterises the magnitude, pace and degree of development of a given quality. Quantity is usually expressed in numbers. A knowledge of reality calls for a quantitative, as well as a qualitative, analysis of phenomena and processes. The higher the development level of science and practice, the more they resort to quantitative indicators and analyse objects in quantitative terms.

The quantitative and qualitative aspects of things are closely interconnected. In their indissoluble unity, they condition each other as the two sides of any thing or phenomenon. The unity of the quantitative and qualitative sides of an object or phenomenon is called measure. The concept of measure records that only a strictly definite quantity corresponds to a particular quality.

Quantity can change without altering quality

only in certain limits, which constitute the measure of an object. When quantitative changes reach these limits, measure is disrupted and the quality of the object begins to change. Thus, under normal atmospheric pressure, temperatures ranging from 0°C to 100°C are the measure of the liquid state of water. When the temperature drops below zero, water freezes and turns into ice, passing into a solid state, and when water is heated to above 100°C , it evaporates, i. e., passes into a gaseous state.

The philosophical concept of measure in a sense corresponds to the popular notion that through immoderation (i. e., a disruption of measure) positive turns into negative, and useful becomes harmful. Thus, even such a necessary condition of life and health as food, if used to excess, leads to metabolic disturbances and bad health.

When measure is disrupted, the old quality no longer corresponds to the new quantity, and a contradiction arises between them. That contradiction keeps aggravating and is finally resolved with the formation of a new quality and the emergence of a new measure. That is known as the transformation of quantitative changes into qualitative ones.

The connection between quantitative and qualitative changes is a natural uniformity. In spelling out the law of the transformation of

quantity into quality, Engels wrote, that "in nature ... qualitative changes can only occur by the quantitative addition or quantitative subtraction of matter or motion".¹

That law is universal, operating both in the objective world and in human knowledge. Thus, initially insignificant quantitative changes in organisms can accumulate and lead to qualitative changes, to the emergence of new varieties and species. People have learnt to use that phenomenon in breeding new strains of agricultural crops and animals. Thus, hybridisation and selection have made it possible to produce many new varieties of apples, lemons, and so on.

Transformation of quantity into quality also occurs in all spheres of social life. Thus, cooperation, that is, a pooling of the efforts of many working people in one and the same production process, creates a new social productive force, which is essentially different from a simple sum-total of its constituents. Diverse forms of cooperation create conditions for more productive work and for a joint solution of problems arising both in production and in meeting the people's vital needs.

The law of the transformation of quantity into quality also operates in the field of knowledge. The emergence of Marxism-Leninism marked a qualitatively new stage in man's cognition of the

¹ Frederick Engels, *Dialectics of Nature*, p. 63.

society, but it was preceded by a gradual accumulation of scientific knowledge.

In different spheres of reality and different phenomena, qualitative changes take place in different ways and have their own specifics. But these changes are always law-governed and occur as a result of quantitative changes.

The interdependence of quantitative and qualitative changes is mutual. In nature and the society, it is not only quantity that is transformed into quality, but also vice versa. That is why Engels spoke of the law of the transformation of quantity into quality and vice versa.

The transformation of quality into quantity means that any phenomenon acquiring a new quality also acquires new quantitative characteristics. Thus, use of modern machinery and technology leads to higher labour productivity, and a transition to socialist forms of agricultural production ensures its higher productivity as compared with small individual farms.

The interaction of quantitative and qualitative changes should be taken into account in practice. Any desired quality can only be obtained on the basis of quantitative preparations, while the way to a new quantity distinct from the old one usually lies through a new quality. Front-rank workers mostly attain higher labour productivity by using qualitatively new machinery and technology, or new methods of labour organisation,

by raising their skill standards, and so on.

Quantitative changes are usually gradual, smooth-going and often hardly noticeable, whereas qualitative transformations are always much faster, more resolute and necessarily leap-like. A leap is a qualitative change, a transition of the phenomenon or some of its aspects from one quality to another. As compared with the preceding quantitative changes, leaps take a much shorter time, but in that time profound transformations of the object or phenomenon take place.

The law of the transformation of quantity into quality, while being universal, manifests itself in different ways in various concrete conditions. Leaps are diverse in nature, duration, and importance. They can be sharp, when the transition from the old quality to the new one occurs right away, and gradual, when that transition has several intermediate stages or transitional forms, taking place step by step. Thus, the change of political power at the time of social revolution is usually rapid, while economic and ideological transformations are more or less gradual, going through several stages.

One should distinguish between gradual quantitative changes and gradual qualitative ones. In the first instance, the quality of a thing does not change, remaining the same up to a certain point, for quantitative changes only pave the way for fundamental, qualitative transformations. In the

second instance, there is a series of gradual changes of the very quality of the thing, leading to the formation of a new quality distinct from the old one.

So, any development has two aspects—quantitative and qualitative changes—and constitutes their indissoluble unity. Development cannot amount to qualitative or quantitative changes alone, but is an interaction of both. In social life, evolution prepares and induces a revolution, which in turn completes the evolution.

It is very important in practical activity to assess the correlation between quantitative and qualitative changes and identify the transition of quantity into quality, for otherwise it is impossible to find the correct ways leading from the old to the new.

The question about the forms of transition to socialism in various countries is most important in our day. The transition to socialism in any country can occur only through socialist revolution. Without a gigantic qualitative leap, without revolution, such a transition is impossible. But the concrete way along which a socialist revolution will unfold in each individual country depends on the level of its socio-economic development, the strength and organisation of the working class and its allies, the existence of a well-tested revolutionary vanguard, the people's customs and traditions, the strength of the bourgeoisie and its resis-

tance to revolutionary transformations, and many other internal and external factors.

The actual experience of socialist construction shows that socialist revolution in different countries cannot take identical forms. In the future, these forms are bound to be further diversified.

To sum up, let us note that the law of the transformation of quantity into quality shows how the transition from one qualitative state to another occurs in the course of development. In other words, this law characterises the crucial turning-points in development, bringing out one of the main aspects of the origination of the new.

3. The Law of Negation of the Negation

The law of negation of the negation shows the connection between consecutive stages of development, between the old and the new. It expresses the general tendency and direction of development. To understand this law, one should first understand the meaning of dialectical negation and its place in development.

In negation, the old is replaced by the new, that is, one stage of development gives way to another. The process of transition from the old to the new, the replacement of one stage by another is known in philosophy as dialectical negation.

What are the most important properties and

specific features of negation?

First of all, negation is universal. It is intrinsic to any development in nature and the society, being a necessary aspect of such development. In animate nature, all biological species are negated over the centuries by new ones, which emerge on the basis of old ones and are more viable. Historical development is a replacement of old societies by new and higher ones: of the primitive-communal by the slave-holding, of the slave-holding by the feudal, of the feudal by the capitalist, and of the capitalist by the socialist. In the field of knowledge, some scientific propositions give way to others, whose reflection of the connections of reality is more precise.

Negation is inherent in the unity and struggle of opposites. The opposite sides of a contradiction have a different significance and play different roles in the development of an object or phenomenon. One of these is directed at changing the object or phenomenon and, consequently, plays a progressive role. The other expresses the stability of the object or phenomenon, and so plays a conservative role. Negation is a resolution of that internal contradiction as its old, conservative side is overcome and its new, progressive side asserts itself.

So, development is a process in the course of which the old is being constantly negated and replaced by the new. Without that there is no

development. Marx wrote: "Any development, whatever its substance may be, can be represented as a series of different stages of development that are connected in such a way that one forms the *negation* of the other... In no sphere can one undergo a development without negating one's previous mode of existence."¹

An important feature of negation is that it is inherent in any developing process and is never extraneous or introduced from outside.

There are different forms of change and replacement of one quality by another. Thus, a grain of corn can be eaten up by a bird or ground at a mill. In this instance, negation amounts to a destruction of the grain by external forces, so that its further development is cut short. Negation here is mechanical. As for dialectical negation, far from bringing development to a halt, it is a condition of further development. Let us take the same grain of corn. If it falls on suitable soil, with adequate heat and moisture, it will germinate. The plant which appears in its place is a negation of the grain. But such negation is a necessary aspect of development and is determined by the nature of the process.

Internal factors play a decisive role in dialectical negation. External conditions, however, can

¹ Karl Marx, Frederick Engels, *Collected Works*, Vol. 6, 1976, p. 317.

also have a considerable effect on its preparation and course. Thus, inadequate heat or moisture can delay or even prevent the development of the grain and its negation by the plant.

Dialectics sees negation as an element of development, as elimination of the old with simultaneous assertion of the new. The new is conditioned and prepared by the old, originates in its entrails, and is engendered by it. So, dialectical negation not only eliminates the old, but also asserts the new.

The old is never fully destroyed by the new. Dialectical negation preserves the positive elements of the old, and the achievements of past development are assimilated by the new. Negation of the obsolete is necessary to retain that which is healthy and progressive, and to create conditions for its further development. Thus, while destroying capitalist relations of production, the socialist revolution retains the productive forces, and while changing the social superstructure, it retains all that is valuable in science and culture.

The process of negation does not unfold in absolutely pure form. Not all the positive elements of the old are preserved in the new, while some of its negative vestiges can be transferred to the latter. Thus, survivals of the colonial past in the economy and in the minds of a section of the people persist for some time after the revolution.

Eventually, these elements of the past are gradually lived down.

Retention of progressive elements which emerged at earlier stages of development amounts to continuity, to a connection between the new and the old. Progressive development is impossible without continuity, just as without elimination of the obsolete. Mankind's history shows that in the course of its development the achievements of human labour and thinking are preserved and accumulated, so that each new stage of development is richer and more meaningful than earlier stages. If every new generation had to start from scratch, social progress would have been impossible.

Dialectical negation includes both elimination of the obsolete and retention of the positive features of the old. That is why the stand of bourgeois ideologues, revisionists and reformists, who oppose the need for revolutionary transformations, for socialist revolution in particular, is theoretically erroneous and politically reactionary. Referring to the fact that the new originates within the entrails of the old, they prefer to forget that an assertion of the new, socialist system demands the elimination of the old, capitalist society.

The anarchist view of revolution as negation without continuity is equally erroneous and metaphysical. Lenin sharply criticised those

theorists who wanted to discard past culture altogether. He explained that although proletarian culture is qualitatively distinct from all past, including bourgeois, culture, and is a negation of the latter, it is nevertheless not rootless and assimilates the best achievements of mankind's past development. He held up Marxism as a model of the right attitude to the ideological wealth of the past. While being a resolute negation of past philosophy, political economy and utopian socialism, Marxism has at the same time retained all their truly scientific elements. In developing the scientific world outlook, Marx and Engels relied on a solid foundation of mankind's accumulated knowledge.

Anything new sooner or later grows old and, as everything old, this eventually gives way to something new again, i. e., there is a negation of that which was once a negation itself. In other words, the law of development is negation of the negation, a replacement of the old by the new and a subsequent replacement of the latter by something even newer.

Since negation not only eliminates the obsolete, but also retains the positive, development is progressive.

Progressive, ascendant development does not follow a straight line. That is because in the course of development, which is on the whole an ascendant process, there may be periods of stag-

nation or even temporary retreats. In social development, such setbacks are usually due to the resistance and temporary victories of the old. Revolutions, for instance, can be defeated by reaction, fascism can win out in this or that country, and so on. But such retreats are always partial and temporary, and development on the whole is progressive. Thus, the old can slow down development, but can never stop it or change its intrinsic nature. That is evident from mankind's entire history, which has been rising from lower and primitive forms of social life to ever higher ones.

Development does not follow a straight line also because some properties of the old, initial stage are eventually repeated. Such repetition does not mean a complete return to the past, but only a reproduction of some of its features at a higher level, on a new basis.

Negation of the negation, Lenin wrote, is a "development that repeats, as it were, stages that have already been passed, but repeats them in a different way, on a higher basis".¹ In social life, for instance, the classless primitive-communal system was based on social property in the means of production. Later on, the development of the productive forces led to negation of social property and its replacement with private property,

¹ V. I. Lenin, *Collected Works*, Vol. 21, 1980, p. 54.

which had full sway under slavery, feudalism and capitalism. But the further development of the productive forces necessarily leads to the communist society, where social property in the means of production is reasserted once again. Consequently, the properties of the initial stage are repeated at a higher level.

So, development is neither a straightforward movement nor a circular movement with full repetition of the old, but is a dialectical unity of progressive movement and relative recurrence, winding upwards in a kind of spiral. Such development takes place in all fields of reality: nature, the society and thinking.

The law of negation of the negation is a universal one. But just as the other laws of dialectics, it always operates specifically, depending on the peculiarities of various processes, objects and the conditions of their development. Engels wrote that "the kind of negation is ... determined, firstly, by the general and, secondly, by the particular nature of the process... Every kind of thing therefore has a peculiar way of being negated in such a manner that it gives rise to a development, and it is just the same with every kind of conception or idea".¹

Under socialism, the law of negation of the negation has some specific features, which stem

¹ Frederick Engels, *Anti-Dühring*, p. 169.

from the new nature of the socialist system, based on social property in the means of production, from the socio-political and ideological unity of the people, and better knowledge of the objective laws of social development. That is why negation here is essentially distinct from negation in antagonistic societies.

First of all, negation under socialism cannot take the form of socio-political revolutions, which restructure social life in a fundamental way. That is because the contradictions of the socialist society are not antagonistic and their resolution does not call for a fundamental reconstruction of social life. What is negated here is not the foundations of the social system, but some obsolescent elements of the social structure, outdated phenomena and past stages of development.

When the foundations of socialism are laid, when antagonistic classes are eliminated and counterrevolutionary forces disappear, negation serves to resolve non-antagonistic contradictions. Such resolution no longer takes the form of class struggle, but the form of organised efforts by the people, led by their Marxist-Leninist party and the state. Here, too, the old is replaced by the new in the course of a struggle, but under socialism the bulk of the people are on the side of the new.

Negations under socialism are carried out in a balanced and conscious way. They are still objective, for they arise and mature objectively, but

are carried out not spontaneously, as in the past, but through conscious human activity on the strength of the laws of social development.

Large-scale negations under socialism take place gradually, through a series of intermediate stages, and are made up of negations on a smaller scale. The transition from socialism under construction to developed socialism and then on to communism is such a large-scale and gradual negation. Embracing the whole of the society, it includes a set of smaller-scale negations in various fields of life.

The overall nature of development also acquires some specific features in the conditions of a socialist society. There is a new type of social progress, which is non-antagonistic and balanced, with conscious use of objective economic laws and forecasting of the results of social activities. Progress under socialism is rapid, unbroken and inexhaustible. As it develops, this society will be increasingly perfected on its own basis.

So, the law of negation expresses the interconnection between consecutive stages of development, and its general direction. It shows that the new is bound to win out, but that progress in social life is impossible without a resolute struggle against the obsolete.

This law teaches one to retain and use all that is valuable and promotes progress, to assimilate and reappraise in a critical and creative spirit the

positive legacy of the past, not to delay negation of obsolete forms, and carry on a resolute struggle for the new.

The progressive nature of the society's motion and the invincibility of the new inspire the working people with optimism and confidence in the victorious outcome of their revolutionary struggle, in the inevitable triumph of democracy, socialism and communism.

Topic 8.

THE CATEGORIES OF MATERIALIST DIALECTICS

Materialist dialectics is not confined to principles and laws expressing the most general and crucial connections of developing reality. It also studies those essential connections and aspects of the development of the material world and knowledge which are expressed in philosophical categories.

Categories are the basic concepts of this or that science. Thus, mass, energy and charge are categories of physics; relations of production, commodity and value are categories of political economy, and so on. The peculiarity of philosophical categories is that they are the most general concepts. Their correlation expresses universal dia-

lectical uniformities and stable connections between various aspects of phenomena. There is no essential difference between these connections and the connections incorporated in the main, basic laws of dialectics, so that they are sometimes known as the non-basic laws of dialectics.

1. Individual, Specific and General (Universal)

In considering the qualitative determinacy of objects and phenomena, we saw that they differ from each other. There are no two absolutely identical things in the world, not even two identical fingerprints among billions of people on the Earth. The totality of an object's individual features which distinguish it from all other objects is known as individual. On the basis of such features, for instance, one can distinguish an acquaintance from among thousands of people.

But different objects are not only specific and distinct, but are also in some respects similar to each other. There are no objects which do not have anything in common. Even when at first sight there seems to be nothing in common between objects, a closer examination will show similarities in some essential properties and qualities. Thus, all people are distinct from each other. But they have some features which make all of them human. Any man, for instance, lives on the

Earth among many other people and is interrelated with them by thousands of diverse links and similarities. A man's anatomy and physiology is similar to those of other men. Like other people, he can feel, think, speak and work. He belongs to a certain race and nation, and has the corresponding peculiarities. He also belongs to a certain class or social group and reflects their specific features, and so on.

The similar, identical, recurrent features of a set of objects manifest themselves as the general.

As the above example shows, the common properties or aspects of objects are not always evident at first sight. These can be rooted in common origin, in the same development laws, and so on.

At the same time, the degree of generality can differ. Thus, the property of being a tree is more general as compared with the property of being a mango or a palm tree. But in comparison with the property of being a plant, it is less general. As compared with a more general property, the less general one manifests itself as specific. In this instance, the tree is a specific plant.

Properties and features which are intrinsic to all phenomena without exception are called universal, or the most general. The universal features in the development of things and phenomena, the forms of their existence, are studied by dialectics and are reflected in its laws and categories.

Materialist dialectics starts from the assumption that the individual and the universal are interconnected. Lenin wrote: "The individual exists only in the connection that leads to the universal. The universal exists only in the individual and through the individual. Every individual is (in one way or another) a universal. Every universal is (a fragment, or an aspect, or the essence of) an individual. Every universal only approximately embraces all the individual objects. Every individual enters incompletely into the universal, etc., etc."¹

A dialectico-materialist understanding of the general and its interconnection with the individual is very important for a correct knowledge of reality. The general is rooted in the essence of things, and is a manifestation of their internal unity. That is why the way to understand the essence of objects and phenomena, and the laws of their development is to understand the general. And the general can be understood only through the individual. At first, through his sense organs a man perceives individual, separate phenomena and their diverse properties, and then his thinking analyses these perceptions, separates the essential from the inessential, the general from the individual. After that, by synthesising and combining the general and essential features of a set of

¹ V. I. Lenin, *Collected Works*, Vol. 38, p. 359.

phenomena, he elaborates a notion of these phenomena, which expresses the general and at the same time essential features peculiar to a set of phenomena. On the whole, the process of cognition proceeds from the individual through the specific to the general and universal.

The categories of the individual and the general also help to understand the process of the origination of the new. The point is that the new in nature and the society often does not emerge right away. At first, it originates as individual, is then strengthened and formed, becomes specific, and eventually general or even universal. That is how all new initiatives and movements, like socialist emulation, originate. That is how the revolutionary consciousness arises and strengthens. The socialist society first began to take shape in one individual country, and has now spread to a large group of countries, which have formed the world socialist system. The inevitable victory of socialism throughout the world will make it universal.

An incorrect solution of the problem of correlation between the general and the individual leads to grave theoretical and political mistakes. Thus, dogmatists fail to understand that the general exists in the specific and individual and therefore always manifests itself in a concrete form depending on the conditions, on the concrete situation and the peculiarities of a phenomenon's develop-

ment. Since they ignore the specifics of the individual and emphasise the use of the general regardless of changing conditions and circumstances, dogmatists simply rehearse general formulas without due analysis of the new circumstances, and so lose touch with life and with the masses.

Denial of the role of the general and undue emphasis on the specific and individual entail equally grave mistakes. That error is one of the theoretical sources of right-wing revisionism. Thus, revisionists seek to obscure or simply deny the existence of uniformities of socialist revolution which are common to all countries, and overestimate the importance of the specifics of individual countries. Marxism-Leninism assumes that realisation of the general uniformities of socialist revolution is compulsory, for they are of crucial importance, and simultaneously demands an analysis and due assessment of the peculiar manifestations of these uniformities in each country depending on its concrete historical conditions.

2. Content and Form

The categories of content and form help to understand the essence of an object or phenomenon.

All objects and phenomena have their own content and their own form.

Content is the totality of those elements, aspects, processes and their relations which are

basic to the existence of a given object or phenomenon and condition the development and change of its forms. Form is the mode of organisation and existence of the content, the inner specific connection among the elements, aspects and processes of a given content which vests the latter with a measure of integrity in its interaction with external conditions.

Content and form are the two inseparable sides of any object or phenomenon. There is nothing in the world without form or content. Thus, any living organism consists of elements (cells, organs, parts) and processes (metabolism, mutation, etc.) which make up its content. The mode of connection and organisation of these elements and processes, which enables that content to exist, constitutes its form. "The whole of organic nature," Engels wrote, "is one continuous proof of the identity or inseparability of form and content."¹

In all social processes and phenomena one also finds an organic unity of content and form. Thus, the productive forces are the content of the mode of production, and the relations of production, its form. The content of our epoch is a transition from capitalism to socialism. That transition is realised in diverse forms, in an economic, political and ideological struggle of the working class, led by Marxist-Leninist parties, and in a struggle by the society's democratic forces against imperialist

¹ Frederick Engels, *Dialectics of Nature*, p. 305.

aggression and export of counterrevolution, for world peace, democracy and socialism.

In works of literature and art, life reflected in artistic images is the content, and the mode of organising and expressing these images, the form. Thus, language, composition, style, etc., make up the form of a literary work.

The content of any objects and processes has an external and an internal form. The external form of objects is their volume, configuration, colour, and so on, and the internal form is the organisation of their content.

The external form is not as closely connected with the content as the internal one. Considerable changes can be made in it without any changes in the content. Thus, *Capital*, Marx's major work, can be published in four or ten books of various size, printed on paper of different quality, variously designed, and so on. Up to a certain limit, external form does not influence the book's content in any significant way. But in some instances, as in aircraft- or ship-building, substantial arbitrary changes cannot be made in the external form without equally substantial changes in the content. External form here is so technically appropriate as to be directly connected with the content.

Internal form is even more closely tied in with the content. Any changes in it are in one way or another reflected in the content. Thus, a change

in style or composition inevitably affects the plot, the content of a literary work, which is bound to have a different emotional impact. Unity of content and form in art is a major law and source of its viability.

Unity, indissoluble connection and interaction of content and form is a universal uniformity. Such unity stems from the fact that, first, they cannot exist without each other: content is always encapsulated in a form, and form encloses a content. Content can exist only in a definite form, while any concrete form always corresponds to a specific content.

At the same time, unity of content and form is far from immutable or given once and for all. It is mobile and dialectically contradictory. Content and form in objects always manifest themselves as opposite aspects or elements of their development. Since any object is in universal interaction, its content tends to keep changing. The form of its existence, on the contrary, expresses the object's tendency to self-preservation and stability; connections and relations, the way in which the elements of the content are organised cannot change as fast as the aspects and processes constituting the content.

Form emerges and changes under the impact of the content, so that its alteration tends to lag somewhat behind the alteration of the content. Hence the struggle between content and form.

The development and resolution of the contradiction between them is one of the main sources of the development of objects, the main cause of changes in their form and transformation of their content. Here is what Lenin wrote about this aspect of the dialectics of content and form: "The struggle of content with form and conversely. The throwing off of the form, the transformation of the content."¹

Changes in objects begin with changes in their content, which ultimately determine the development of their form. That is why content plays a decisive role in the dialectical unity of content and form. But this dependence of form on content should not be absolutised, since form has relative independence.

The division of various aspects in objects into content and form is not absolute either: that which is content in one respect manifests itself as form in another respect, and vice versa. Thus, the relations of production are the form of the mode of production, with the productive forces as its content. At the same time, the relations of production constitute the basis of the socio-economic formation, and in this respect manifest themselves as content.

What makes the form relative is that although it is ultimately determined by the content, it also

¹ V. I. Lenin, *Collected Works*, Vol. 38, p. 222.

has its own laws of development. Thus, social consciousness is the form of man's social being. But, governed by the development laws of social being, it simultaneously has its own, specific development laws: continuity, unevenness, influence of tradition, and so on. As a result, the development of form and content is not synchronous, and a contradiction naturally arises between them.

The contradictory interaction of form and content is primarily expressed in that in the course of development a new content can for a time retain the old form. Thus, capitalist relations of production were replaced with socialist ones in a number of countries with a retention of old forms: money circulation, banks, commodity production, etc.

The dialectics of form and content also manifests itself in that one and the same content can assume diverse forms. The proletarian dictatorship, for instance, has different forms: the Paris Commune, Soviet power, people's democracy, and others.

Another manifestation of the dialectics of form and content is that the contradiction between them inevitably aggravates and, in certain conditions, reaches the point of a conflict. At that point, further development can occur only if the old form is replaced with a new one, so that a new correspondence is established between content and form. After that, the cycle starts anew. This

uniformity is well illustrated by the dialectics of the productive forces and the relations of production, the succession of modes of production.

Far from excluding an active reciprocal influence of form on content, their objective dialectics presupposes such influence. Form can either slow down or accelerate development processes, and cause their erosion and disappearance. Thus, private property relations under capitalism slow down the development of production as a whole, while socialist social relations are a powerful accelerator of economic and cultural development in the socialist community countries.

The objective dialectics of form and content is of great importance for cognition since it orients towards a study of objects and processes in unity of their content and form, with a view to their dialectical connection with each other, their transmutations, contradictions, and so on. Since form is connected with content and is an expression of it, cognition should proceed from perception of the form to disclosure of the content, then back to the object as a whole, then on to a study of the form at a higher level, and so on. Truly scientific knowledge takes shape when cognition seeks to bring out the content and the objective dialectics between it and form. Thus, cognition of organic nature began with an accumulation of knowledge about the external peculiarities of plants and animals, and their classification into

species, genera and classes, and then went on to bring out their content: to establish the genetic basis of specific differences and the most general laws of evolution.

In considering the question of form and content, one should point out some specific features of their dialectical interaction in the socialist society. Among these features are, first of all, the non-antagonistic nature of the contradictions between form and content under socialism and, as a consequence, the possibility of ruling out profound social conflicts. The conscious nature of social development under socialism makes it possible to restructure the form in accordance with the new content more or less in good time.

It is also important to elucidate the role in development of the various aspects and elements of the object. This enables us to understand the categories of essence and appearance.

3. Essence and Appearance

The concepts of essence and appearance dialectically reflect interconnected aspects of objects and processes.

Essence is the integral totality of the most fundamental connections and internal laws, which determine the steady mode of existence and the development tendencies of an object or phenomenon. It expresses, first, the general in the diver-

sity of objects or their properties, and second, the deepest-lying basis of a changing object or phenomenon, its most stable and permanent elements. Essence never manifests itself on the surface of objects, processes or their relations, but is hidden for the subject behind appearance and is thus inaccessible to sensory perception. That is why essence is comprehended through abstract thinking.

Appearance is the totality of external features, properties and relations within or between objects, the form in which essence manifests and discloses itself. In contrast to essence, it expresses the singular, individual in objects, their relatively external and superficial side, that which is mobile and changeable within them. Appearance has a direct impact on the human sense organs and is reflected by these. Everything in the world is a unity of essence and appearance. This unity is expressed in that, first, they are two aspects of one and the same object, and can be separated only mentally. Here is how Lenin characterised that unity: "Here, too, we see a transition, a flow from the one to the other: the essence appears. The appearance is essential."¹ Second, their unity is expressed in that in the real process of development they are transformed into each other. This should be borne in mind because the classification

¹ V. I. Lenin, *Collected Works*, Vol. 38, p. 251.

of the various aspects of objects into essence and appearance is not absolute, but has a meaning and objective basis only in a certain respect. Thus, social property in the means of production and social relations of cooperation and mutual assistance between friendly classes based on that property constitute the essence of the socialist society. It manifests itself in many ways: in the absence of exploitation and crises, balanced economic development, the people's socio-political unity, friendship among nations, and so on. Third, the unity of essence and appearance manifests itself in the objective interdependence of their change: any change in essence in the course of development inevitably leads to changes in appearance, and vice versa. Thus, the transition from pre-monopoly to monopoly capitalism partially altered the essence of that society: capitalism became imperialist. The altered essence of capitalism was reflected in its new features: establishment of monopoly domination in the life of capitalist countries, formation of finance capital and of international monopolies in the interest of economic expansion, and completion of the territorial division of the world. The changes in essence here led to changes in appearance. Capitalism became aggressive and more reactionary in every area, with an increase in unemployment, social inequality, competition, class struggle, etc. But the unity of essence and appearance is rela-

tive, and implies a distinction or even their antithesis. The contradiction between essence and appearance primarily manifests itself in that they do not coincide: essence does not fully encompass appearance, while appearance is only an approximate expression of essence.

Essence and appearance do not coincide, for they are different sides of an object, with essence always being hidden deep inside, so that it cannot be detected through immediate contemplation. If the essence of things fully coincided with its manifestations, cognition would not have been such a long and complicated process and science would have been unnecessary.

But since essence and appearance are intrinsically connected and essence is expressed in appearances, it can be comprehended. Cognition always proceeds from appearance to essence, from the external side of things to fundamental law-governed connections.

In analysing the essence of social phenomena, the founders of Marxism-Leninism provided unsurpassed examples of such analysis. Among these was Marx's discovery of the essence of capitalist exploitation.

Bourgeois economists and sociologists, confining themselves to the study of appearances, have always maintained that there is no exploitation in the capitalist society, and that the capitalist pays his workers whatever they earn. The source of

capitalist profit is seen in capital itself, invested by the capitalist in production, rather than in his exploitation of the workers.

In reality, everything is quite different. The worker needs a definite amount of means of subsistence to live and support his family. To obtain these means of subsistence under capitalism, he is obliged to sell his labour power to the capitalist. At first sight, the worker and the capitalist conclude a conventional transaction involving purchase and sale. The worker sells, and the capitalist buys his labour power; the worker toils, and the capitalist pays him wages.

Such is the appearance of an equitable transaction between the capitalist and the worker, lying on the surface of capitalist relations. Marx, however, did not confine himself to analysing the superficial appearances of the capitalist society. Behind the appearance, the semblance of an equitable deal between the capitalist and the worker, he exposed the exploitative essence of capitalist production. He showed that labour power is a special commodity capable of producing material values, and that the values it produces cost much more than what the capitalist pays for it in the form of wages.

Marx's discovery of the essence of capitalist exploitation was of immense historical importance, making it possible to get to the root of the antagonism between the bourgeoisie and the pro-

letariat, and to show the inevitability of a struggle between them, which is eventually bound to lead to a socialist revolution and the downfall of capitalism.

That classical example of social research provides highly convincing proof of how important it is for science and revolutionary practice to comprehend the essence of phenomena.

The objects and phenomena of reality are not isolated, but exist in interconnection, outside whose context it is impossible to understand any of them. To study an object in connection with others primarily implies the need to establish the cause of its origination, and so let us now consider the categories of cause and effect.

4. Cause and Effect

There are no causeless events in the world: all events are effects of definite causes. Establishment of the cause of a phenomenon is a major element of its cognition. Science begins with the discovery of cause-and-effect connections.

Cause-and-effect connection is a form of universal connection, namely, a form of connection under which one phenomenon or circumstance conditions or engenders another. That which engenders any phenomenon is called its cause. Cause conditions the emergence of a phenomenon, changes in its state, and its disappearance.

The result of the operation of the cause is called effect.

The cause-and-effect connection has a number of essential features. First of all, the causal dependence of phenomena is universal. There is no phenomenon or event which would not have a cause. Causal connection is a crucial link in the infinite chain of interactions between objects and phenomena.

Causal connection is objective, that is, it is intrinsic to the phenomena of the material world itself. Its main feature is that under certain conditions, a definite cause will inevitably and unfailingly lead to a definite effect. Thus, the heating of a piece of iron is bound to lead to its expansion, but cannot turn it, say, into gold. If a grain of corn falls on suitable soil, under appropriate conditions it gives rise to a plant of corn, but never to any other plant.

A major feature of causal connection is its strict sequence in time: the phenomenon which becomes a cause always precedes the effect, which can never arise before that phenomenon or simultaneously with it, but always occurs a little later. Precedence in time, however, is a necessary but inadequate condition for regarding a phenomenon as a cause. Not everything which precedes a phenomenon serves as its cause.

When science was still insufficiently developed, and scientific knowledge was beyond the reach of

most people, they often failed to distinguish causal connections from sequence in time. That was one of the sources of superstitions and preconceptions, whose vestiges still survive in one form or another.

Human practice alone is the decisive criterion of a correct knowledge of cause-and-effect connections, helping, in particular, to distinguish a causal connection from a simple sequence in time. A knowledge of causal connections, for its part, is very important for human practice, for scientific forecasting, for influencing the processes of reality and rechanneling these in the direction man needs.

In considering a causal nexus, one should bear in mind that causes can be both external and internal. The internal causes of an object's change are rooted in the nature of the object itself, being an interaction of its aspects. Internal causes play a more important role than external ones. Thus, the internal cause of any social revolution is the contradiction between the productive forces and the relations of production of a given mode of production in the country, rather than any external impact.

When a cause is external, the effect is a result of interaction between that cause and the phenomenon upon which it acts, so that one and the same cause can give rise to different effects. Thus, under the influence of sunshine, ice will melt, a

plant will assimilate carbon dioxide and grow, a human being will get a suntan, and complex physiological processes will occur in his body. It can also happen that different causes lead to one and the same effect. Thus, a poor crop of corn can either be due to a drought or to faulty farming practices: incorrect crop rotation, use of poor seed, badly timed cultivation of crops, etc. So, a phenomenon can be caused by the interaction either of various objects, or various aspects of one and the same object, or else both, i. e., by a combination of internal and external factors.

One of the characteristic features of cause-and-effect connections is that cause and effect can change places. An event which is an effect in one instance can be a cause in another instance at some other time. Thus, while being an effect of definite weather conditions, rain can also be the cause of a good crop, and the latter can itself cause an improvement in the economy, and so on.

All phenomena, especially complicated ones, have many causes. But the latter differ in importance. Causes can be basic (decisive) and non-basic, general and immediate. It is very important to single out the basic, decisive causes from among all these, bearing in mind that basic causes are usually internal. Their establishment is very important for scientific cognition and revolutionary practice.

The dialectico-materialist doctrine of causality

is of great importance in terms of world outlook. It contrasts with the idealist and religious doctrine of purpose. Religion asserts that everything in the world has a purpose, being designed by a "creator". As Engels put it, according to teleology, "cats were created to eat mice, mice to be eaten by cats, and the whole of nature to testify to the wisdom of the creator".¹

To back up their views, the ideologues of religion refer, in particular, to animate nature, where the harmony between living organisms and the conditions of their existence is amazing indeed, and where the structure of plants and animals is all but perfect. Biology has shown, however, that the relative perfection of organisms has taken shape in the course of protracted evolution as a result of their interaction with the environment, natural selection, and other biological laws.

Everything in nature proceeds according to natural, objective laws, the causal dependence of phenomena in particular. Goals appear only where people, intelligent beings, begin to operate, that is, in the course of social development. But although people set themselves various goals, this does not obviate the objective, causal and law-governed nature of social development.

Cause-and-effect connection is universal. But

¹ Frederick Engels, *Dialectics of Nature*, p. 25.

all the diverse connections of reality are not limited to it, for it constitutes, as Lenin pointed out, only a small part of the universal connection. In the intricate network of causal connections in the world, necessary and accidental (chance) connections are most important. Let us take a closer look at these.

5. Necessity and Chance

The concept of necessity is formed on the strength of a further study of causality, notably, through an elucidation of the necessary nature of cause-and-effect connections. That is why necessity is sometimes identified with causality. But necessity and causality are different concepts. The concept of causality reflects the conditioning of some forms of being by others, while the concept of necessity reflects the inevitable emergence of certain connections and properties under appropriate conditions.

Properties and connections are called necessary when the causes of their existence lie within themselves, and when they are conditioned by the inner nature of the elements constituting a phenomenon, while properties and connections whose causes lie outside them, i. e., which are conditioned by external circumstances, are known as accidental, or chance. Necessary properties and connections inevitably occur under certain condi-

tions, while chance properties and connections are not inevitable, and can either occur or not.

Thus, elimination of underdevelopment is a necessity, which stems from the law-governed development of newly independent societies, especially those which have chosen the socialist orientation. It is conditioned by the growing socio-political unity of the people, guidance of the society by a revolutionary vanguard, and the growing social activity of the masses. But in the course of realisation of that necessity, various accidents can occur. Thus, unfavourable weather conditions could have an adverse effect on agriculture in one region or another, while the discovery of rich mineral deposits could give a powerful impulse to the development of a region or even of the whole country.

In a country which has chosen the socialist road of development, heightened constructive activity and initiative of the masses is a law-governed necessity. The working people are bound to intensify their efforts to increase production and boost labour productivity, to introduce new and more efficient forms of production for their society, for the people. But the enterprise at which a particular movement is initiated and the person who initiates it are a fortuity, for the movement could well be initiated by someone else.

In the objective world, necessity reigns supre-

me as the inevitable force of the development of phenomena, stemming from their essence and conditioned by the whole of their preceding development and interaction. The category of necessity expresses the law-governed character of natural and social development.

A point to note here is that chance events, just as necessary ones, have their own causes. It would be wrong to think that chance and causelessness are one and the same thing. There are no causeless events at all. Just as necessity, chance is objective, and its existence does not depend on whether we know its causes or not. Denial of the objective nature of chance tends to give social history and individual human existence a fatal, mystical nature.

At the same time, chance is relative. There are no phenomena which are fortuitous in every respect and are not connected with necessity. A phenomenon is fortuitous only in relation to a definite law-governed connection, whereas in another connection the same phenomenon could be necessary. Thus, from the standpoint of the overall course of scientific development it is only an accident that some discovery is made by a particular scientist, but the discovery itself is a necessary result of the particular development level reached by the productive forces, the progress of science itself.

Chance very often occurs at the intersection of

two or more necessary connections. Take, for example, a tree felled by a storm. In the life of the tree, the strong wind is a chance event, for it does not inevitably arise from the essence of the tree's life and growth. But in relation to meteorological factors, the wind is a necessary phenomenon, for it is due to the operation of definite meteorological laws. The chance event occurred at the point where these two necessary processes—the life of a tree and the rise of a wind—intersected. In this instance, it is not only the wind that is accidental for the tree, but the tree which happens to be in the path of the wind is equally accidental for the latter.

So, chance is something external in relation to a given phenomenon or process and, consequently, it is possible but not inevitable for that phenomenon or process, and can either occur or not.

Necessity and chance are closely interconnected. This connection primarily means that one and the same phenomenon manifests itself in one respect as a fortuity, and in another, as a necessity. But there is more to this connection. As Engels wrote, chance is only one pole of an interrelation, the other pole of which is called necessity.

Indeed, necessity always manifests itself and makes its way through a mass of accidents as something stable and recurrent. Social develop-

ment, for instance, is the sum-total of the activities of numerous individuals with their diverse strivings, goals and dispositions. All these strivings intertwine and collide, ultimately resulting in a definite line of development, which is strictly necessary.

Accidents always accompany and supplement necessity, and so play a certain role in history. That is why the same laws of social development take special forms and operate in peculiar ways in different countries and periods. If there were nothing but necessity, and chance did not play any role, Marx noted, history would have had a mystical character.

As it follows from the circumstance that necessity can be realised through chance, the latter not only supplements necessity, but is also a form of its manifestation, and this is important for understanding the dialectics of necessity and chance. Thus, social revolutions and other law-governed social phenomena are connected with many accidental circumstances, like the place and time of various events, their participants, etc. These circumstances are accidental in relation to historical development, but it is precisely through these that necessary processes occur.

In the socialist society, where social development is a balanced process, favourable conditions take shape making it possible markedly to limit the free play of undesirable accidents. Thus, in-

roduction of scientific farming practices, land improvement and other measures substantially limit the adverse effect of weather vagaries on agricultural production in various regions and the country as a whole.

Conscious and purposeful human activity guided by a Marxist-Leninist party sharply limits the role of chance events. But these can occur even in the conditions of socialist construction. In the economy, for instance, some branches of production may lag behind for various extrinsic reasons, some enterprises may fail to fulfil their plans, etc.

Marxism-Leninism teaches people not to ignore accidents, but to study them, on the one hand, in order to foresee, prevent or limit adverse accidents and, on the other, to make use of positive ones.

It is important to take a scientific view of the processes going forward in the world, to understand their uniformities and, on the strength of a knowledge of objective laws, to control natural and social processes.

Necessity always manifests itself in definite objective conditions. But these conditions keep changing, and necessity changes and develops accordingly. Necessity never emerges in ready-made form, but first exists as a possibility, which turns into reality only under favourable conditions.

6. Possibility and Reality

The various things and processes that exist in the objective world arise owing to natural necessity, when the prerequisites, causes and conditions have taken shape for their emergence. In due course, development reaches a point when the new object or process has not as yet emerged, while the conditions for its emergence have already taken shape, having been prepared by preceding development.

The existence of basic prerequisites, causes and conditions for the emergence of something new is called possibility. The category of possibility reflects an objective tendency in the development of reality.

The concept of reality is used both in a broad and a narrow sense. In the broad sense of the word, it means all that exists in the objective world, and in the narrow sense, it means an accomplished, realised possibility.

Possibility and reality are closely tied in with each other. Possibility is engendered by the development of reality, and reality is prepared by possibility. So, they should not be separated from each other.

In practice, detachment of possibility from reality leads to abstract discourse about unrealistic possibilities, for true possibility is always connected with reality and is engendered by it.

Detachment of reality from possibility, on the other hand, blunts the feeling for what is new and leads to a loss of perspective.

Nor should possibility and reality be identified with each other, for they are separated by a tortuous, often difficult and protracted process in the course of which the former turns into the latter. In social life, for instance, translation of possibility into reality calls for intensive efforts and is connected with the struggle of diverse social forces. In practice, identification of possibility and reality leads to complacency and can only dampen the activity of the masses aimed at converting the former into the latter.

One should distinguish between abstract and real possibilities. A possibility is real when all the conditions for its realisation have taken shape. When a possibility agrees with the laws of nature and the society, does not contradict these laws, but the necessary conditions for its translation into reality are still lacking, it is an abstract possibility.

An abstract possibility becomes real when these conditions take shape. Thus, the dreams of the utopian socialists of the late 18th and early 19th centuries of the possibility of a transition to socialism were abstract, for the conditions for that had yet to mature. In our epoch, that possibility has become a real one, and in a sizeable part of the world it has already been translated into reality.

The probability of the realisation of abstract possibilities differs. Some abstract possibilities are so far from being realised as to border on impossibility. Still, abstract possibility should not be fully identified with impossibility, for impossibility contradicts the laws of nature and the society, and can never turn into reality.

The distinction between abstract and real possibilities is essential but relative. Many abstract possibilities are at various stages of conversion into real ones. As for practical activity, one should primarily orient oneself towards real possibilities. A point to bear in mind here is that the feasibility of real possibilities can differ : some of these can be closer to realisation than others.

In nature, objective conditions alone are sufficient for turning possibility into reality. Thus, the seeds of a wild plant will germinate if they simply fall on suitable soil with the required heat and moisture. In social life, where people with a consciousness and a will operate, possibility is translated into reality in a different way. The process here is not automatic, but is a result of conscious human activity. That is why objective conditions alone are insufficient for turning possibility into reality, which also calls for subjective conditions: awareness of the need for transformations, resolve to work for these, organisation of the people, of the classes involved, the party, etc.

The dependence of translating possibility into

reality on conscious human activity is even more important in view of the simultaneous emergence of diverse possibilities stemming from the existence of opposite tendencies and forces. Which of these possibilities is realised largely depends on the activity of these forces, the outcome of the struggle between them. In our day, for instance, there is a possibility of preventing a world thermonuclear war. But there is also another possibility, that of its outbreak, for imperialism with its military-industrial complex and aggressive strivings still exists. So, prevention of a world war largely depends on the organisation, cohesion and resolve of the peace forces, on the scale and successes of their struggle against the arms race, against the development of new mass destruction weapons, for detente and peaceful co-existence.

One of the advantages of socialism over capitalism is that it contains not only qualitatively new, but incomparably greater possibilities for progress in all areas of social life. This is due to the very nature of socialism, where private property in the means of production is abolished and the producers of material values are free working people. Owing to the society's socio-political and ideological unity, progress under socialism is supported by all its members. There are no classes or other organised social forces resisting imperative transformations. But in the socialist society as

well, new possibilities are not realised automatically, but call for efforts and struggle. Of course, this is not a class struggle, but a struggle of an overwhelming majority of the people against that which is backward, conservative and stagnant. That is why implementation of the new under socialism is fuller and more successful than in antagonistic societies.

Topic 9.

THE THEORY OF
KNOWLEDGE OF
DIALECTICAL MATE-
RIALISM

1. Cognition as a Process
of Reflection of Reality
in Human Consciousness

The question of whether the world is cognisable, of the ability of human thought to comprehend the truth is of great importance for science and practice. If the world and the laws of its development are cognisable and our knowledge is a correct reflection of reality, the cognised forces of nature and the society can be put at the service of mankind.

The Marxist-Leninist philosophy assumes that man can understand the world and the laws of its development, and that he can use this knowledge for the revolutionary transformation of the world. The dialectico-materialist theory of knowledge points out the ways and forms of man's cognition of the

world and practical use of the knowledge obtained. This theory hinges on the proposition that the external world exists objectively and is reflected in the human mind. This means that the objects and phenomena of reality make an impact on the human sense organs, engendering sensations and perceptions, on whose basis man elaborates concepts. The external world is the source of all our knowledge.

But the process of cognition is not a passive reflection of the surrounding world. People actively transform nature and the society, and this activity puts before them various problems, whose solution requires a knowledge of natural and social laws. Consequently, cognition is an active and purposeful reflection of reality, rather than its passive contemplation.

Dialectical materialism sees human cognition as a product of social development, as a result of man's active transformation of the surrounding world. Man's material activity aimed at transforming nature and the society is the basis and goal of cognition. All forms of cognition take shape in the course of practice, of joint human labour. The individual gets to know the world as he lives in the society and makes use of the experience accumulated by earlier generations, entrenched in instruments of production, and recorded in language, science, culture, etc.

The founders of Marxism-Leninism brought

out the dialectics of cognition. From the standpoint of dialectical materialism, cognition is an endless process in the course of which human thought draws closer to the essence of the object being studied. It is a movement of thought from ignorance to knowledge, from incomplete and imperfect knowledge to fuller and more perfect knowledge. Replacing obsolete theories with new ones and specifying old theories and propositions, knowledge keeps advancing, elucidating ever new aspects of reality.

2. The Dialectics of Cognition

Cognition is a dialectical process from beginning to end, a movement from direct living perception to abstract thought and then on to practice. Lenin wrote: "From living perception to abstract thought, *and from this to practice*,—such is the dialectical path of the cognition of *truth*, of the cognition of objective reality."¹

Consequently, cognition has two levels: first, sensory cognition, or living perception, and second, rational cognition, or abstract thinking, with practice as the basis of cognition. At each of the two levels, cognition takes its own concrete forms. Sensory cognition has three forms: sensa-

¹ V. I. Lenin, *Collected Works*, Vol. 38, p. 171.

tion, perception and representation.

Sensations are the initial form of man's reflection of the world. These arise as the result of an immediate impact of material objects on the sense organs, which can be affected by the most diverse properties of things. We can sense the hardness of an object, sounds, colours, and so on. Different objects and phenomena act upon the sense organs in different ways. In some instances, the sense organs come into direct contact with the objects, giving rise, for instance, to sensations of sweet, bitter, sour, resilient, rough, smooth, etc. In other instances, we sense the object at a distance, as in the formation of a visual image of an object when the light it reflects or radiates acts upon the eye's retina. But whatever the impact of an object on the sense organs, sensation is the result of an external irritant acting upon them.

Sensations are the source of all our knowledge. "Save through sensations, we can know nothing either of the forms of matter or of the forms of motion; sensations are evoked by the action of matter in motion upon our sense-organs."¹

Sensations are the source of our knowledge because they are a subjective image of objective reality. Sensations are subjective in form, for their emergence is connected with the activity of the sense organs. At the same time, they are objective

¹ V. I. Lenin, *Collected Works*, Vol. 14, p. 302.

in content, for they reflect the objective properties of things. Thus, flavours and other properties and qualities of objects are sensed individually and subjectively by each person. But the subjective image corresponds to the objective nature of things. Thus, the flavour of a food product reflects one of its objective properties.

Sensations are a correct reflection of objectively existing reality, correctly informing us about the things and phenomena of the external world.

Perceptions are a more complex form of sensory cognition. These reflect the object directly acting upon the sense organs in its entirety. As a rule, our sensations are not isolated from each other, but make up a certain combination. Any object acts upon different sense organs by its various properties, which are in close unity within that object itself. The perception of an object arises as the separate sensations blend together into its integral image.

Man can retain in his memory that which he perceived earlier on, and reproduce the images of objects when these objects are absent. Such a reproduced image of an object which at that particular moment does not act upon the sense organs is called representation.

Representations make it possible to generalise, for images of objects retained in the memory enable man to make comparisons, draw parallels and form abstractions, bringing out the charac-

teristic features of objects. So, whereas perceptions reflect objects in all their concrete properties and details, representations bring out their common, general features, and that helps to understand the essence of these objects. Once we have a representation of some object, we quickly grasp its essence and peculiarities.

Sensations, perceptions and representations, i. e., the forms of sensory cognition, are images of reality. Their correspondence to objectively existing things is tested in practice.

But man does not stop at the stage of sensory cognition. He goes beyond it, getting to know the universal, necessary and essential properties and relations of objects, their law-governed connections inaccessible to sensory cognition. This is attained at the rational, or logical, stage of cognition, with the help of thinking. Human thought is capable of discerning that which cannot be seen at the moment or which cannot be directly observed at all. Thus, our sense organs cannot perceive the origination of life on the Earth or the speed of light, but mental comprehension of such processes and phenomena is possible.

Thinking helps to bring out internal and universal connections, to discover the laws of change and development in nature, the society and cognition itself, to unravel the deepest mysteries of the surrounding world.

Thought is a product of historical develop-

ment, of social practice. It is a generalised and mediated reflection of reality. Thinking is connected with the external world through sensory cognition, and its essence consists in processing information obtained through the sense organs.

As a generalised cognition of reality, thought is directed at bringing out the general, essential properties of objects, phenomena and processes. Generalisation would have been impossible without language: thought and language are closely tied in with each other. As we bring out the general in objects and phenomena, we express it in language, in the form of words. It is only owing to the generalising role of language that an individual can relate his thoughts to other people and find out about their own thoughts, summarise and pass on his knowledge.

Like sensory cognition, thought assumes definite forms. These are: concepts, judgements and inferences.

Concept is a form of thought which reflects the general and essential features of objects and phenomena. The totality of these general features constitutes the content of a concept. In language, concepts are expressed by a word or group of words, like matter, organism, socio-economic formation, etc.

Every science has its own system of concepts, which express the laws it discovers and formulate its initial principles. Thus, among the basic con-

cepts of philosophy are matter, consciousness, motion, causality, etc., and among those of political economy, the concepts of value, commodity, etc.

Scientific concepts are a generalised reflection of reality, accumulating the knowledge and experience obtained by science and practice over a whole historical period. Each concept is therefore a kind of summary in the development of knowledge, a stage in the cognition of the objective world, a nodal link in the chain of any scientific theory. With the help of concepts, a science can explain the cause of the ongoing changes, their nature and peculiarity, and the laws behind them. Hence the immense cognitive value of concepts.

In the thinking process, concepts are usually elements of judgements. Judgement is a form of thought asserting or denying that some feature belongs to a definite object or group of objects, or asserting or denying a relationship between objects.

Thoughts like "man is a social being", "colonialism is to blame for the underdevelopment of Asian, African and Latin American countries", and "socialism is a society of social justice" are judgements. The first of these records the connection between man and the society; the second, between colonialism and the underdevelopment of numerous countries; and the third, between

socialism and social justice.

A judgement can be formulated both by way of direct observation, and indirectly, on the strength of other judgements.

A form of thought by means of which a new judgement is deduced from one or several other judgements is called an inference, or conclusion. The judgements from which the inference is drawn are known as the premises, and the new judgement, as the conclusion, or consequence. Here is an example of inference: "Work is a right and duty of all the citizens of a socialist society. Every citizen of the USSR is a member of a socialist society. Consequently, every Soviet citizen has the right and duty to work." The first two judgements here are so connected as to make it possible to infer a new judgement, containing a new idea. Inferences are widely used to obtain knowledge about phenomena which cannot be directly observed, but which are governed by known laws. Inferences help to substantiate the truth or fallacy of various propositions, to explain established facts and laws, and make scientific forecasts on the strength of discovered uniformities.

The sensory and rational stages of cognition are closely interconnected. Scientific cognition begins with a direct perception of separate aspects and connections of the object or phenomenon. Experiments are then staged, yielding material for a

bringing out the general. That is followed by abstraction, that is, diversion of attention from some properties or relations of objects and phenomena, and by generalisation, that is, identification of the crucial, decisive properties and relations. Scientific cognition then goes on to bring out the internal connections of objects and processes, their interactions and transmutations, and the decisive uniformities of their development. As our knowledge deepens, the reflection of these connections, relations and even the object itself tends to lose its sensory image, but the process of cognition goes on, as scientific abstraction makes it possible to comprehend that which cannot be directly observed. A point to bear in mind here is that thinking, like sensory cognition, is conditioned by and connected with practice, with practical human needs, and relies on data drawn from practice.

The law of human cognition is a movement from appearance to essence, from the external to the internal. That is evident from the entire history of science. Thus, many economists before Marx saw the external properties of commodities: their usefulness (use value) and capacity for exchange (exchange value). But these external manifestations of the properties of commodities conceal deep-rooted internal connections, and it was Marx who detected these connections, establishing the common element of all commodities:

the social labour necessary for their production.

Commodity is a duality, namely, a unity of use and exchange value. That is why the labour embodied in commodity should also be dual. Having discovered that, Marx showed that the value of a commodity expresses the social nature of labour, social relations among men.

The great importance of scientific theoretical thinking is that it is a powerful instrument in the cognition of the world, enabling man to comprehend truth.

3. The Marxist-Leninist Doctrine of Truth

The main task of scientific cognition is to comprehend truth.

The Marxist-Leninist philosophy sees truth as a correct, valid reflection of objective reality, its reproduction in the human mind as it really is. Truth is such knowledge about the objective world which corresponds to reality. Where knowledge does not correspond to reality, it is a delusion.

Dialectical materialism assumes that our knowledge has an objective content, that truth is always objective.

Take this judgement: "The Earth existed before man." This judgement is true. Natural science shows that for hundreds of millions of

years the Earth was a lifeless planet before the origination of life, and that man emerged only about 2.5-3 million years ago.

The content of our knowledge which does not depend either on man or on mankind is called objective truth.

Recognition of objective truth stems from the materialist theory of reflection. Our consciousness reflects, copies the objective reality, the actually existing world. Lenin wrote: "To regard our sensations as images of the external world, to recognise objective truth, to hold the materialist theory of knowledge—these are all one and the same thing."¹

The Marxist-Leninist doctrine of objective truth is of exceptional importance for science and practical activity. It urges the need to reckon with scientific data and take due account of these. Faithfulness to the truth in human behaviour is closely tied in with conviction, honesty and civic courage.

How does man arrive at objective truth? Is it expressed in his concepts, judgements and theories in its totality, as something complete and absolute, or only approximately and partially? An analysis of the correlation between absolute and relative truth gives an answer to that question.

¹ V. I. Lenin, *Collected Works*, Vol. 14, p. 130.

The distinction between absolute and relative truth is a distinction in the depth of cognition, the fullness of our knowledge of reality. The concepts of absolute and relative truth show the correlation between that which is already known and that which has yet to be cognised, and also between that which will be specified and that which will remain irrefutable.

The concept of absolute truth has two aspects. First, it is an accurate, complete and exhaustive reflection of reality, and second, it is the irrefutable element of objective truth, an element which cannot be refuted in the future.

Relative truth is approximately true knowledge, which is incomplete and is increasingly filled out, specified and corrected in the course of cognition. Relative truth expresses our historically conditioned knowledge, its limitations at the given stage of cognition.

Human knowledge at each historical stage is determined by the attained level of practice, science and production. Scientific laws and propositions reflect the connections and relations that exist in definite conditions, and scientific progress means not only the discovery of new facts and laws, but also specification of the conditions under which these laws are valid. So, scientific truths are relative in the sense that they do not give an exhaustive knowledge of reality, but are changed and specified.

Thus, the atomic theory of matter has existed since ancient times. Alongside the true proposition that substance consisted of atoms, which was an element of absolute truth, that theory also contained an element of delusion: the proposition that atoms were indivisible. The discovery in the late 19th century of the electron, radio-activity, and other scientific achievements made it possible to specify our knowledge in this field, to overcome the erroneous ideas about indivisible atoms, and to expand and deepen the correct notions.

Absolute truth should not be contrasted with relative truth, for truth is a process, a movement of thought from incomplete and approximately true knowledge to fuller and more precise knowledge, and relative truth is only a stage on the way to absolute truth.

In explaining these pivotal propositions, Lenin wrote: "From the standpoint of modern materialism, i. e., Marxism, the *limits* of approximation of our knowledge to objective, absolute truth are historically conditional, but the existence of such truth is *unconditional*, and the fact that we are approaching nearer to it is also unconditional."¹ Consequently, our knowledge is relative not in the sense that it does not contain absolute truth, but only in the sense that our knowledge

¹ V. I. Lenin, *Collected Works*, Vol. 14, p. 136.

approaches this truth in a gradual, historically conditioned process.

True knowledge is knowledge which corresponds to reality. With any changes in reality, our knowledge about it should change accordingly. This means that there is no abstract truth, and that truth is always concrete. One arrives at the truth through an all-round study and assessment of the conditions, time, place, and historical peculiarities, because that which is true in some conditions can be false in others, and vice versa.

An assessment of concrete conditions is particularly important in social life, for this is an area of constant change, as some factors disappear and others emerge, etc.

A misunderstanding of the dialectics of absolute and relative truth, disregard for the concrete nature of truth lead to two extremes: dogmatism and relativism. Dogmatism exaggerates the absolute element of cognition and denies its relative nature. It results from the absolutisation of some propositions, conclusions, or formulas, which are considered outside the context of concrete conditions, place and time.

Being out of touch with life and practice, dogmatists operate with ossified concepts and formulas, applying these to phenomena or events to which they cannot be applied. Dogmatism manifests itself in a rehearsal of mechanically memo-

rised propositions, formal attitudes, bureaucratic practices, etc.

Relativism absolutises the relative, conditional element of knowledge and so denies absolute truth. Relativism as a basis of the theory of knowledge, Lenin wrote, implies not only recognition of the relativity of our knowledge, but also a denial of any objective measure or model which exists independently of mankind and towards which our relative knowledge keeps approaching. Relativism inevitably leads to a denial of the possibility of cognition and authentic scientific knowledge, to subjectivism. Relativism and dogmatism have always been widely used by right and "left" opportunists and revisionists of every stripe, who often claim to be the only representatives of "creative Marxism-Leninism".

4. The Role of Practice in Cognition

Practice is man's purposeful social activity in transforming nature and the society. It includes, first, the process of material production; second, the socio-political, revolutionary-transformative activity of classes, of the popular masses; and third, scientific research and experiments.

"The standpoint of life, of practice," Lenin wrote, "should be first and fundamental in the theory of knowledge. And it inevitably leads to

materialism....”¹

In cognition, practice has the following functions. First, practical social activity is the point of departure and the main, essential basis of cognition. Cognition itself emerged and has been developing on the basis of practice, owing to man's production activity. True scientific cognition is only possible in the course of practical interaction with the external world, and is inconceivable without and independently of practice.

Second, practice is the driving force of cognition. Practical needs, the needs of production above all, propel theoretical science, set tasks before it, and project the main line of its development. In this sense, practice is also the goal of cognition. The cognition process itself, any science emerge and develop owing to the needs of practice, the requirements of life. Whenever a vital problem cries out for a solution, science should—and does—provide an answer to it.

Third, practice is the criterion of the truth of our knowledge. Practice serves to test various concepts and theories, to establish their truth or fallacy, to specify and systematise knowledge.

It is only in the course of practice that people can confirm or refute the objective truth of their knowledge, and that makes practice as a criterion absolute.

¹ V. I. Lenin, *Collected Works*, Vol. 14, p. 142.

At the same time, practice as a criterion is relative, for in each particular epoch it can confirm or refute our knowledge only within the limits attained in their development by social production and social relations.

Both practice and theory keep developing, and the decisive role in their development belongs to practice. Theory and practice are two inseparable aspects of cognition. They enrich each other, as in the unity of science and production.

In accordance with the logic of its development, science can gain relative independence and outpace the development of production. It provides a basis for the development of material production and spiritual culture, scientific planning of the productive forces, rational use of raw material and manpower resources, etc.

Theory and practice should be seen in unity, since theory is not only enriched by socio-historical practice, but is itself a powerful transformative force, pointing out practical ways for the revolutionary change of the world, for eliminating age-old backwardness and building a new life.

Topic 10.

THE METHODS OF
SCIENTIFIC
COGNITION

1. The System of Methods
of Scientific Cognition

The revolutionary transformation of the world is carried out on the basis of its scientific cognition, which necessarily involves the use of the principles, laws and categories of materialist dialectics, but is not confined to that. Materialist dialectics itself demands due regard for the specifics of the objects, processes or phenomena being studied, their internal connections and relations. The methods of cognition are closely tied in with theory, with the laws of the functioning and development of the object, process or phenomenon in question.

Theory and method are relatively independent forms in which man masters the surrounding

objective reality. Theory is a form of the organisation of scientific knowledge which gives an integral idea of the uniformities and essential connections and relations of a definite sphere of reality. It is a system of ideal images reflecting the essence of the object being studied, its internal necessary connections, and the laws of its functioning and development. Method is the totality of ways and operations for gaining a theoretical and practical command of reality. It is a totality of interconnected principles and demands directing people in their cognitive and goal-oriented transformative activity. Hence, theory performs an explanatory function, showing what necessary properties and connections are immanent in the object, and by what laws it is governed in its functioning and development. As for method, it performs a regulative function, showing how the subject should approach the object he wants to understand or transform, and what cognitive or practical operations he should carry out to attain his goal. In describing an object, theory shows what that object is at present, while method prescribes the action to be taken with regard to that object. But even while theory and method are fairly independent and perform different functions, they are always interconnected and depend on each other. Any scientific method is elaborated on the strength of some theory. If it is to be effective in attaining a cognitive or practical goal, its princi-

ples should reflect the properties and relations of the object which is the target of cognition or practical activity. And these properties and relations are brought out and explained by theory. At the same time, the depth and authenticity of the explanation of the object's properties and connections in theory, and the profundity and effectiveness of its transformation in practice depend on the use of appropriate methods of cognitive and practical activity.

In accordance with the degree of universality and depth of the theoretical reflection of the world, and also the specifics of the objects being studied and their internal connections and relations, the researcher's attitude to the object of cognition, and the sequence and organisation of his mental operations, the methods of cognition can be divided into three main groups.

First of all, there is the universal method: materialist dialectics, or dialectical materialism. As it was shown earlier, the universal method formulates the most general laws of cognition and so constitutes a generalised philosophical theory of the development of science, its general methodology. In its content, the universal method corresponds to the most general properties of objects and phenomena, and so expresses the most general features of any scientific methods.

General scientific methods, which are used in all or most sciences, make up a large group. These

are based on broad scientific principles, laws and theories, and express the general and essential features of scientific cognition, the general and essential in the objects themselves. Among the general scientific methods of cognition are observation, measurement and experiment, formalisation, ascent from abstract to concrete, historical and logical reproduction of the object, analysis and synthesis, mathematical, statistical and other methods. These methods, formed on the basis of elementary logical operations and procedures, through a reflection of the logic of man's practical activity, are of general scientific importance in that they constitute a crucial condition for cognising objective truth, the laws and uniformities of the material world.

The universal and general methods of cognition are insufficient for an in-depth and all-round reflection of objects, since any object has its own specifics, quality, properties, etc. The solution of any specifically cognitive problem presupposes a choice of appropriate ways and methods. That is why in the course of its historical development any science elaborates a system of particular (or concrete) scientific methods. Among these are methods of research, used in one or several related sciences, like the method of spectral analysis in physics, the method of excavations in archaeology, radar methods in astronomy, etc.

There is no absolute distinction between

general and particular methods. As some science advances and brings to light ever more general uniformities, its particular methods develop into general scientific ones. The process is also advanced by the integration of sciences in the course of their development. Thus, with the development of technical and natural sciences, the field of application of mathematical methods has expanded, and these methods have now become general scientific ones.

All the methods of scientific cognition are closely interconnected and do not exist in isolation from each other. Naturally, in the study of the world they are also applied in unity. At the same time, within the framework of that unity each of these methods has a measure of independence and performs its own methodological function.

Such unity and relative independence characterise the connection between the universal method of cognition and all other scientific methods. The objective basis of the unity and distinction between the dialectical method and other scientific methods is the unity of the universal, general and individual properties and features of any objects and phenomena, their change on the basis of interacting universal, general and specific laws.

Any scientific theory is based on universal, general and specific propositions reflecting the corresponding properties and laws of the material

world, so that all scientific research is bound to be simultaneously guided by universal philosophical and special principles, laws and categories, with the universal, philosophical method permeating and determining all the other methods of scientific cognition and directing the cognitive process.

Materialist dialectics as the universal method is tied in with the other methods of cognition, constituting their internal content. That is expressed in the connection between scientific methods, their elements and aspects, in their transmutation and interaction in the course of cognition. At the same time, the dialectico-materialist method relies on other scientific methods and keeps drawing on the achievements and methods of the natural and social sciences. In other words, the universal, general and particular methods are interconnected and influence one another. The specific features and main demands of using materialist dialectics as the universal method of scientific cognition and revolutionary-transformative activity were examined above. Let us now take a brief look at the most common general methods of scientific cognition.

Scientific cognition is a unity of empirical and theoretical knowledge. Each level within that unity is relatively independent, and each has a set of methods, including general scientific ones.

2. Empirical Methods of Cognition

Methods peculiar to the empirical level of cognition play an important cognitive role. Empirical methods are the starting point of scientific cognition. One specific feature of the empirical level of cognition is that it deals with the objective properties, connections and relations among things which come to light in the course of human practical activity or as a result of scientific cognition.

Collection of facts and data about the behaviour of the object being studied is the initial stage of true scientific cognition. Any scientific knowledge is based on a systematic generalisation and study of the facts of reality. Such facts constitute the crucial content of knowledge. They confirm, concretise and specify or else disprove the original hypothesis or some theoretical propositions, and provide a groundwork for formulating new scientific problems and practical tasks.

The necessary facts are obtained through observation and experiment.

Observation as a method of cognition is a purposeful and organised perception of objects and phenomena. It is a definite system for establishing and recording the objective properties and connections of the object being studied, either in natural conditions or in a scientific experiment.

A knowledge of the general and specific plays an important role both in everyday and scientific observation. Both of these are realised in sensory-object form. Sensory perception here is subjective in form, but objective in content. Both everyday and scientific observation yields information on the objective properties and connections of reality, and the difference between them is in their goals: everyday observation is carried on without a specially formulated goal in the field of scientific cognition, and pursues purely pragmatic ends, while scientific observation has a clear-cut task, its procedure is planned in advance, and its results are tested by scientific methods. Development of the capacity for everyday observation is a basis for acquiring the skills of scientific observation, and an exceptionally important factor sharpening the individual's awareness of all that is new and essential in daily life. Everyday observation is also important because it occurs in the course of practical activity, and so enables one to get one's bearings among the processes and phenomena of reality.

Scientific observation as a method is connected with some theory or hypothesis. It is not meant to record any facts that may come up, but presupposes classification and deliberate selection of the most important, essential facts or fundamentally new facts which do not fit into the initial propositions of the hypothesis or theory. Whereas facts of

the former type confirm or refute a particular supposition, the latter can contain germs of the new, elements of the future.

It is important to master the observation method because it helps to collect a fairly wide range of data on the properties and connections of the object, process or phenomenon being studied. Such information provides a substantive basis for subsequent theoretical analysis, formulation and solution of practical social problems. The effectiveness of the observation method largely depends on what kind of facts and how many of these the researcher has been able to record, classify and include in the cognitive process.

For subsequent theoretical analysis, it is particularly important to classify the available facts by volume and novelty of the objective information they contain, by the peculiarities of the properties and connections expressed in them, their correspondence to the purposes of the research, and their connection with theory.

Observation, though necessary, is insufficient for gaining in-depth knowledge. It merely helps to detect and record some external connections and properties of objects and phenomena, but cannot serve to bring out their nature, essence and development tendencies. It is also limited because it does not involve active interference in natural processes. This is done with the help of other empirical methods: measurement and, to

an even greater extent, experiment.

Measurement is a direct or indirect empirical operation enabling the researcher to trace out the object's correlation or change as compared with another object taken as a standard. A specific feature of the measurement method is its direct connection with the quantitative aspect of the objects, phenomena or processes being studied. But registration of quantitative characteristics makes it possible to bring out their connection with the quality of the object in question at different stages of its development.

The exploration of objective quantitative characteristics, properties and relations of objects and phenomena with the help of measurement enables the researcher to gain a better knowledge of their quality and to determine the general tendency of change. Use of that information at the level of theoretical knowledge helps to comprehend their nature and essence.

Scientific cognition often makes it necessary to observe a phenomenon "under conditions that assure the occurrence of the phenomenon in its normality".¹ That is done through experiments.

Experiment is a method of cognition when opportunities for identifying and examining a process in relatively "pure" form are created through changes in its conditions, direction or

¹ Karl Marx, *Capital*, Vol. I, p. 19.

nature. In an experiment, the researcher must observe a number of conditions. First of all, he has to have some knowledge of the object, process or phenomenon being studied. On the basis of that knowledge, he determines the goal, procedure and means of staging the experiment. In the course of the experiment itself, he observes, measures and records the facts obtained, classifies them, makes statistical computations, draws up tables, and plots charts and diagrams for subsequent theoretical analysis. A major specific feature of experiment is its connection with some hypothesis or theory, theoretical substantiation of its terms, and inclusion of its results in the subsequent process of cognition.

Like method, experiment cannot always be used in the study of social phenomena. Social experiments are often ruled out in view of moral, ethical principles. Most social phenomena and processes cannot be reproduced in a laboratory or repeated several times. They cannot be examined in "pure" form, in isolation from their politico-class and ideological foundations. Nevertheless, the role of social experiments in our day has been steadily growing. Thus, under developed socialism material production increasingly develops along the lines of industrial experiment, and scientific experiment reaches the scale of industrial production. Whole enterprises, large specialised farms and livestock-breeding complexes are

switched to new forms of organisation of production, new technology, material and moral incentives to work, etc.

The scientific approach to the solution of newly arising practical social problems always includes an element of experimental research. Social experiments are also important because they make it possible to test in practice the effectiveness of different solutions offered for practical social problems, and so to avoid hasty decisions on the scale of the whole country, its various regions, or separate branches of the economy.

3. Theoretical Methods of Cognition

The method of ascent from abstract to concrete is of exceptional importance in cognition. This method leads to a most profound knowledge of the essence of objects and phenomena, to the attainment of objective truth.

The process of cognition is aimed at an ever fuller, comprehensive and concrete reflection of reality. At the stage of sensory cognition, the surrounding reality, which manifests itself as concrete in its diverse properties and qualities, is already reflected in many connections and relations. But that reflection and cognition of reality are spontaneous and empirical, and can only embrace external aspects, connections and rela-

tions accessible to the senses, whereas the essence of the law-governed connections of reality can only be brought out through abstract thinking.

The dialectics of cognition is reflected in the dialectics of the abstract and concrete. Cognition of the material world begins with its sensory perception. But scientific theoretical cognition has its point of departure in a dialectical negation of the sensory-concrete, a transition to abstractions.

Abstraction serves to single out the object's most important and essential properties, aspects and uniformities, and to penetrate into the hidden sphere of internal connections and relations inaccessible to the senses. Lenin wrote: "Thought proceeding from the concrete to the abstract—provided it is *correct*—... does not get away *from* the truth but comes closer to it. The abstraction of *matter*, of a *law* of nature, the abstraction of *value*, etc., in short, *all* scientific (correct, serious, not absurd) abstractions reflect nature more deeply, truly and *completely*."¹

As the initial point of scientific cognition, abstractions make possible a mental reproduction of an object in all its basic connections and relations. Such a reproduction with the help of abstract concepts of an integral mental image of the object is called ascent (or advance) from

¹ V. I. Lenin, *Collected Works*, Vol. 38, p. 171.

abstract to concrete.

So, the process of cognition has two stages. At the first stage, there is an ascent from the sensory-concrete to the abstract: an immediate perception of objects and phenomena, their dissection, analysis and formation of abstractions. At the second stage, the object is mentally reproduced in its integrity on the basis of a subordination of categories, and concrete knowledge of its essence and uniformities takes shape. Marx wrote: "The concrete concept is concrete because it is a synthesis of many definitions, thus representing the unity of diverse aspects. It appears therefore in reasoning as a summing-up, a result, and not as the starting point, although it is the real point of origin, and thus also the point of origin of perception and imagination. The first procedure attenuates meaningful images to abstract definitions, the second leads from abstract definitions by way of reasoning to the reproduction of the concrete situation."¹

In cognition, the abstract is an intermediate stage between the concrete in reality and in thinking. It is only through it and with its help that cognition proceeds from the sensory-concrete to the concrete in thinking. A synthesis of abstract definitions of the sensory-concrete is the only way

¹ Karl Marx, *A Contribution to the Critique of Political Economy*, Progress Publishers, Moscow, 1977, p. 206.

to reproduce the concrete in thinking, to attain concrete knowledge.

Abstractions single out the most important, essential aspects, connections and relations in the sensory-concrete. They make it possible to follow the emergence and development of an object or phenomenon of reality. Abstraction is a condition for subsequent concretisation, for an adequate reflection of reality in thinking. A mental reproduction of an object or phenomenon yields a knowledge of the concrete in its essence and completeness.

Acquisition of knowledge in the course of education does not coincide with its acquisition in the course of scientific inquiry. As Marx wrote, "the method of presentation must differ in form from that of inquiry. The latter has to appropriate the material in detail, to analyse its different forms of development, to trace out their inner connection. Only after this work is done, can the actual movement be adequately described."¹

In the course of education, the individual largely assimilates ready knowledge, with the material researched and presented in some particular system. It is assumed that the stage of empirical cognition and mastery of basic scientific concepts was completed earlier on. The detailed analysis of concrete empirical material and for-

¹ Karl Marx *Capital*, Vol. I, p. 28.

mulation of abstractions, of basic concepts, can be reflected in teaching matter only partially or not at all. In his *Capital*, Marx mostly resorts to ascent from abstract to concrete, although a movement from concrete to abstract is not ruled out either. One can see how from an analysis of the concrete (commodity, exchange, price, etc.) Marx proceeded to the abstract (value, surplus value, etc.) and then on to bring out the actual relations of daily life in the society (commercial profit, interest rate, etc.).

The cognition of new social phenomena does not rule out the possibility of using the first, as well as the second stage. A knowledge of the dialectics of the concrete and abstract is a major condition of scientific, creative thinking. In studying dialectical materialism, one masters the basic categories, concepts and abstractions of the scientific world outlook, making sure to understand the dialectics of the formation of these scientific concepts and their subordination, * starting from the simplest and most elementary to the most complex. It is important to know and be able to determine their logical content and volume, their connection and correlation with others. An ability to trace out the very advance from the sensory concrete to the abstract and then on to the mentally concrete is another condition for the

* From Latin *sub + ordinare*: to put in order.

development of dialectical thinking.

The process of scientific cognition necessarily includes the use of the *logical and historical methods*, which make it possible to advance from the abstract to the concrete and acquire concrete knowledge.

The question of how the advance from the abstract to the concrete coincides with the object's historical development is one of the aspects of the correlation between the logical and the historical in cognition. Marx pointed out the answer to that question: "The procedure of abstract reasoning which advances from the simplest to more complex concepts to that extent conforms to actual historical development."¹

To attain objective truth and gain concrete knowledge about objects, phenomena and processes of reality, one should both bring out their essence and trace out their emergence and development. Fulfilment of that two-fold task implies a unity of the logical and historical methods.

The historical method is meant to reproduce in the consciousness the objective historical process of development, its conditions and prerequisites, its chronology and concrete forms of manifestation.

¹ Karl Marx, *A Contribution to the Critique of Political Economy*, p. 208.

The logical method, in contrast to the historical one, is meant to reproduce the objects and phenomena of reality in theoretical form with the help of a system of abstractions. What is reproduced here is the essence, the main content, the general uniformity of the object, the direction and sequence of its development.

Scientific cognition presupposes the study of any object, on the one hand, in the course of its historical development, and on the other, on the basis of the logic of its development. The historical here constitutes the content of the logical, and the logical brings out the structure and uniformities of the historical.

A knowledge of the essence of the logical and dialectical methods and the main demands on their use is most important for the development of dialectical thinking, and for scientific-theoretical and practical training as a whole. A study of dialectical materialism implies the use of both methods.

The Marxist-Leninist philosophy is a strictly scientific system of views about the world and man's place in it, and its presentation in manuals is theoretical, i. e., logical. Naturally, this does not mean that the historical method cannot be applied in setting forth the basic principles of dialectical and historical materialism. Virtually in every topic, the logical presentation of the basic propositions, categories and laws is concretised by

a presentation of their development in the historical process of cognition. Thus, in studying the topic of "Matter and the Forms of Its Existence", the student is acquainted not only with the present level of knowledge, with the scientific understanding of matter, motion, space, time, etc., but also with the reading of these categories in materialist and idealist philosophy at different stages of their development and by different philosophical schools and trends.

A knowledge of dialectical and historical materialism as the basis of the scientific world outlook and methodology implies its assimilation as a logically harmonious system of scientific knowledge. How well the logical content of the basic theoretical propositions is assimilated largely depends on their connection with reality, with socio-historical practice. A knowledge of theory and an ability to use it as a basis for analysing real processes and phenomena must rely on a unity of the logical and historical methods of cognition. The more conscious the use of these methods, the more efficient is the acquisition of knowledge and its practical use.

Advance to the concrete, reproduction of the object in the diversity and fullness of its connections and relations is a complex analytico-synthetic process.

Analysis and synthesis are important methods of cognition. Analytico-synthetic activity marks

the whole cognitive process in general and is a crucial feature of thinking. Engels wrote: "thought consists just as much in the taking apart of objects of consciousness into their elements as in the putting together of related elements into a unity".¹

Analysis is a mental separation of the whole into simpler component parts, aspects and properties, their purposeful and systematic study. Synthesis is a mental combination and reproduction of the connections and relations of the separate parts, aspects and elements that have been analysed and comprehension of the whole in its unity.

In the course of cognition, the object or phenomenon is mentally dissected through the abstraction of its various aspects, properties, connections and relations, and their thorough study. The mental dissection of the object into components and their examination enable the researcher to choose the most essential, crucial and internal in all their diversity, separating these from secondary, accidental and external. Such mental operations make it possible to bring out the essentially general that unites all the diverse elements into the object's qualitative determinacy.

The cognitive process, however, does not end

¹ Frederick Engels, *Anti-Dühring*, p. 56.

with analysis, but goes on to a mental restoration of the object, to a reproduction of the concrete as a unity of the diverse.

Synthesis is the logical continuation of analysis, its other side. It helps to put together mentally the analysed elements expressed in abstract categories on the basis of their subordination.

As general scientific methods of cognition, analysis and synthesis cannot be separated. To understand the whole, it is necessary to study its parts with the help of analysis, whereas the role and functions of the parts can be understood only through cognition of the whole with the help of synthesis. Analysis enables the researcher to advance from the sensory-concrete to the abstract, and synthesis, from the abstract to the mentally concrete. Emphasising the unity of analysis and synthesis, Lenin wrote: "...The union of analysis and synthesis - the break-down of the separate parts and the totality, the summation of these parts."¹

Analysis and synthesis are not confined to scientific research, but are used in the solution of any theoretical or practical problem. In education, analysis and synthesis of the information obtained are also used as important methods.

¹ V. I. Lenin, *Collected Works*, Vol. 38, p. 221.

In the study of dialectical and historical materialism, analysis is used to obtain new information, to break it down and fill it out with details, and to determine the logical volume and content of the basic concepts and categories. Synthesis is used to formulate generalised concepts, bring out the logical connection between ideas, and reproduce the fullest possible picture of the object or phenomenon being studied. The analytico-synthetical processing of scientific information is carried out both within the framework of the discipline as a whole, and each individual topic. The results of the study of each topic, the synthesis of its main ideas and propositions is not the ultimate limit of cognition, for these synthesised results can be subjected to analysis in the study of other topics at a higher level.

Analytico-synthetical processing of study material is a condition of its creative assimilation. Analysis, comprehension and systematisation of such material develops dialectical thinking, while mechanical cramming is ineffective: up to a point, it can only enrich a person's memory, but will then encumber it. Inability to use analysis and synthesis in mastering the Marxist-Leninist philosophy can also have other adverse consequences, including its schematic and dogmatic assimilation.

It is equally dangerous to absolutise one of these methods and underestimate the other. True

scientific cognition requires the use of analysis and synthesis in their unity. If one confines oneself to analysis, one cannot gain integral, concrete knowledge or understand the essence of the object, process or phenomenon being examined. And if one confines oneself to synthesis without analysis, this turns cognition into an indefinite and often pointless exercise.

Correct use of analysis and synthesis in the study of the Marxist-Leninist theory is conditioned by its specifics as a scientific system of knowledge. Analytico-synthetical thinking best of all meets the content of materialist dialectics and the materialist understanding of history. Conscious analytico-synthetical activity in the study of dialectical and historical materialism ensures the most successful solution of educational problems. It is exceptionally important to develop and strengthen the ability and skills of analytico-synthetical thinking, for it enables people to tackle the practical tasks of social development in a creative way.

Alongside analysis and synthesis, a major role in cognition belongs to *induction and deduction*.

Induction and deduction are opposite forms of obtaining new knowledge. Induction is a movement of thought from separate facts to a general proposition, from less general to more general knowledge, while deduction is a movement of

thought from the general to the particular. Induction makes it possible to draw a broader, generalising conclusion from initial premises, while deductive inferences are less general as compared with the initial premises.

The inductive method is effective at the initial stages of the cognitive process, when man comprehends empirical experience, accumulates and generalises facts and data, formulates a hypothesis and verifies it. One of the merits of this method is that it can be used for analysis and generalisation even on the strength of a single, particular fact. It is marked by self-evidence. Systematic use of the inductive method develops the ability to analyse concrete situations, to generalise factual data, advance and verify hypotheses. At the same time, one should bear in mind the limitations of the inductive method, the problematical nature of the resultant knowledge. The shortcoming of induction is that it cannot take into account the development of the object being studied. Engels wrote: "The concepts with which induction operates: species, genus, class, have been rendered fluid by the theory of evolution and so have become *relative*: but one cannot use relative concepts for induction."¹

One of the merits of the deductive method is that the conclusions drawn with its help are

¹ Frederick Engels, *Dialectics of Nature*, pp. 227-28.

strictly demonstrable, and the resultant knowledge is true and authentic. From true premises, we can deduce logically necessary corollaries. "If our premises are correct and we apply the laws of thought correctly to them," Engels wrote, "the result must tally with reality."¹ The deductive method gives logical order and integrity to theoretical material, helps to substantiate and systematize it. Being supplemented with synthesis, deduction is structured in accordance with the theory of evolution, with the historical stages of the object's transformation. One species, Engels wrote, is "literally *deduced* from another by descent."² The deductive method, however, also has its own flaws. The possibilities of deduction are limited by the totality of its basic general premises and by its inability to validate these premises.

In the actual process of cognition, induction and deduction are in unity. This unity makes it possible to use the advantages of both these methods, compensating for the limitations of the one by the merits of the other. Induction is necessarily supplemented with deduction, and includes elements of the latter. It is not confined to pinpointing similar features in objects, but also singles out the essential among these and brings out

¹ Frederick Engels, *Anti-Dühring*, p. 399.

² Frederick Engels, *Dialectics of Nature*, p. 227.

their mutual connections and relations, which is impossible without some elements of deduction. Deduction, for its part, cannot be reduced to a system of reasoning without regard for the truth and validity of the initial premises, something that is ensured by the inclusion of elements of induction. In view of their interconnection and interdependence, and the need for their unity in the process of cognition, Engels wrote: "Induction and deduction belong together as necessarily as synthesis and analysis. Instead of one-sidedly lauding one to the skies at the expense of the other, we should seek to apply each of them in its place, and that can only be done by bearing in mind that they belong together, that they supplement each other."¹

A study of the Marxist-Leninist philosophy involves the use of scientific induction and deduction, when knowledge is inferred on the strength of available information. A command of these methods helps, on the one hand, to generalise the facts and phenomena of reality, of daily practical activity, and on the other, to find concrete solutions to practical problems on the strength of general tasks and propositions.

Skilful use of the methods of pedagogical induction and deduction is of great practical help in education and work. Pedagogical use of induction

¹ Frederick Engels, *Dialectics of Nature*, p. 228.

and deduction differs from the corresponding methods of acquiring inferred knowledge in that its aim is not to draw conclusions from premises, but to go over from one unit of knowledge to another, to explain diverse concepts and propositions. In systematising studied material, it can be presented both inductively and deductively. If the material is systematised and presented by way of transition from separate facts to general propositions, the method being used is inductive, and if the problem is presented starting with general propositions and involves a subsequent transition to separate facts, the method being used is deductive.

Virtually any problem can be presented both deductively and inductively. The method is usually chosen in accordance with the purposes of the presentation, the specifics of the problem itself, and the peculiarities of the audience for which it is intended. A popular, easily understood presentation of the problem is best achieved with the help of induction, while scrupulous demonstration of the propositions being related calls for deduction. In the study of dialectical materialism, one should use both these methods, giving preference in each topic to that which enables the student better to understand the content of its problems, and also to make practical use of the knowledge acquired.

As it was already pointed out, scientific

abstractions play an exceptionally important role in cognition. But the cognitive process does not end with the formation of abstractions, for these cannot bring out the whole essence of the object being studied. Abstract thought is incomplete, general and undialectical, while dialectical thought is profoundly scientific, definite, consistent and conclusive, that is, concrete.

Another major instrument of concretising thought, alongside induction and deduction, is *analogy*. Its specific feature is a movement of thought from one particular to another particular. Analogy occupies a kind of intermediate, transitional place between induction and deduction.

Analogy is a form of inferred knowledge in which a similarity between objects in some respects is used to draw a conclusion on their similarity in other respects. This means that analogy should be preceded by a set of preliminary operations as regards the object being studied. Among these are, first, assimilation of empirical knowledge about separate aspects, properties, connections and relations of the object and their systematisation; second, choice of a suitable analogue (model), whose properties are studied most fully and with which the analogy is to be drawn; and third, establishment of the necessary and essential connection between the common features of the objects being compared

and the feature which the model possesses and which is to be transferred to the object being studied.

The initial and simplest procedure is to pinpoint the common features of different objects or phenomena. The important thing here is, first, to establish as many common features as possible, and second, to single out the similarities in the essential, intrinsic features of these objects or phenomena, separating all the secondary and accidental features. The more thoroughly the similarities and distinctions of the objects, phenomena or processes being studied are analysed, the sounder and more probable is the conclusion from analogy.

Any conclusion on the similarity of some properties or aspects of objects or phenomena on the strength of the similarities of other properties or aspects is always a probability. A broad, thorough and profound study of analogous objects or phenomena is a crucial condition for increasing the probability of conclusions from analogy. The fuller our knowledge of the objects being studied, the less important is their number. Where the objects are poorly explored, their essence is not brought to light, and their distinctions are not taken into account, there is no ground for highly probable conclusions from analogy. One should also bear in mind that the objects being compared may not fully coincide. Analogy establishes

their correspondence only in certain respects, according to definite features. Every comparison is imperfect, Lenin wrote. "In every comparison a likeness is drawn in regard to only one aspect or several aspects of the objects or notions compared, while the other aspects are tentatively and with reservation abstracted."¹

Since its conclusions are only probable, analogy cannot serve as an instrument of logical proof. Nevertheless, it is one of the most widely used methods of cognition.

A knowledge of how to apply analogy and its skillful use can be of great importance in practical work. An analysis of analogous processes, phenomena and life situations makes it possible to find optimal solutions for various problems and to decide how to behave in concrete conditions. In showing Lenin's use of analogy in the solution of urgent problems facing the working-class movement, Nadezhda Krupskaya noted: "Lenin's method was to take Marx's works examining similar situations, thoroughly to analyse and compare them with the present, and bring out the similarities and distinctions."² On the strength of a set of coinciding indicators, one can foresee the direction of the development of a process or

¹ V. I. Lenin, *Collected Works*, Vol. 8, p. 454.

² Nadezhda Krupskaya, *On Lenin* (Collected Speeches and Articles), Moscow, 1971, p. 249 (in Russian).

phenomenon, and determine the ways and means of influencing it in order to avoid undesirable consequences and strengthen its positive elements.

Analogy is used to build verbal and visual models, in which the area being analysed is represented with the help of another one, better known and easier to understand. To obtain more valid conclusions, *model experiments* are used. In this instance, the given object, process or phenomenon is subjected to experimental study in an actually existing or imagined system, which substitutes for the original in the cognitive process and which is similar, or analogous, to it. "Modelling is the construction of a model reproducing the peculiarities of the structure, behaviour and other properties of the original, and subsequent experimentation with it, or its mental examination."¹ Modelling enables the researcher to make a more thorough study in "pure" form, with the help of a scaled-up or scaled-down model, of processes which cannot be directly observed. The results of the experiments are generalised and transferred to the original or to a whole group of objects similar to that which has been studied. Conclusions drawn from model experiments are highly authentic. Under the ongoing scientific and technical revolution

¹ See, *Dialectical Materialism*, Moscow, 1974, p. 178 (in Russian).

and gigantic social transformations, model experiments are being used on an ever wider scale not only in the natural and technical sciences, but also in sociology, economics, etc. Social practice increasingly puts forward modelling as a method of social cognition and a major task of social science.

CONCLUSION

Materialist dialectics is a major theoretical gain of Marxism-Leninism. Its historic importance and lasting value in mankind's present and future cannot be overestimated. It permeates every sphere of human activity without exception: philosophy and the special sciences, all lines of material and spiritual production.

Even a brief and popular presentation of the fundamentals of materialist dialectics shows its profound importance in terms of world outlook, the methodological role of its principles, laws and categories, their validity and strictly scientific nature and, consequently, their objective necessity for scientific cognition and practice

based on it. Here are some of the most vivid manifestations of how materialist dialectics is relevant to life as the world-outlook and methodological basis of scientific cognition and resultant practice.

First, materialist dialectics is a science of most general laws of nature, the society and thought, scientifically reflecting the objective uniformities of development in all these spheres. It equips science and practice with world outlook and methodology, orienting them towards all that is new, progressive and developing.

Second, by making consistent use of the principle of historicism, materialist dialectics shows the boundless perspectives of mankind's progress and, from the positions of the progressive class, orients the consciousness of all people towards the future, towards socialism and communism, when the global problems of social being will be fully solved.

Third, materialist dialectics differs from all other philosophical conceptions in that it is a scientifically substantiated and logically interconnected, organic system of laws and categories, which has taken shape on the basis of scientific and practical progress, a system which keeps developing in the course of history. As the world outlook and method which most accurately reflects development in nature, the society and thought, materialist dialectics keeps changing, developing and enriching itself, filling out its

categorial apparatus, introducing new concepts, and specifying old ones.

In relation to the Marxist-Leninist philosophy, materialist dialectics is the world outlook and methodological core, which expresses the universal laws of the world's development and its cognition by man. It reveals itself here as a theory of evolution and, simultaneously, as a theory of cognition and the logic of theoretical thought.

In the special sciences, it serves as a world-outlook and methodological basis for the solution of general theoretical and philosophical problems in these branches of knowledge. It equips these sciences with an objective method of approaching the phenomena they study, with the scientific instruments of observation, experiment and modelling in the theoretical solution of their problems. A conscious command and use of the method of materialist dialectics accelerates progress in the special sciences, both natural and social.

Materialist dialectics is particularly important in the revolutionary practice and transformative activity of men. Its conscious and skillful use in mapping out the ways and methods for a solution of practical problems is an earnest of success, while renunciation of dialectics and disregard of its demands are bound to lead to grave mistakes and miscalculations both in cognition and practice.

Materialist dialectics is in harmony with the

scientific style and nature of modern science and culture. It stimulates scientific research in science and practice, and promotes the contest and selection of ideas which enable cognition to penetrate ever deeper into the essence of phenomena. It achieves this by strictly scientific methods, looking primarily to the objective processes in science which oblige researchers to think dialectically.

The problems of materialist dialectics are the focus of attention in science and practice. Philosophers are not the only ones who should use and elaborate them. Every specialist in any sphere of knowledge, every practical fighter for peace, democracy, social progress, socialism and communism should not only make skillful use of the basic principles, laws and categories of dialectics, but should also look for creative ways of comprehending them in greater depth and applying them in diverse and purposeful theoretical and practical activity.

PHILOSOPHICAL TERMS IN COMMON USE

Absolute (from Latin *absolutus*: unconditional, completed) – in idealist philosophy and religion, the unconditional and perfect origin of being, free from any relations or conditions (God, the supreme absolute being in theism, the One in neo-Platonism, etc.).

Absolute idea – in idealist philosophy, the concept of a supernatural and unconditional spiritual principle, an essence which was there before nature itself came into being, an impersonal intelligence which engenders the actual material world: nature, man, the society, and human thought.

Abstraction (from Latin *abstractus*: withdrawn) – a form of cognition based on the mental identification of an object's essential properties and connections and diversion from its other, particular properties and connections; a general concept resulting from the process of abstraction; a synonym of "mental" or "conceptual". The main

types of abstraction include isolating abstraction (which singles out the given phenomenon from some integrity), generalising abstraction (which presents a generalised picture of the phenomenon), and idealisation (which substitutes an idealised scheme for the real empirical phenomenon). The abstract is contrasted with the concrete.

Agnosticism (from Greek *agnostos*: unknown, unknowable) – a philosophical doctrine which denies the possibility of cognising the objective world, its essence and laws, and which limits the role of science to cognition of phenomena. It emerged in antiquity (scepticism); marks the doctrines of David Hume and Immanuel Kant; agnostic tendencies are typical of a number of trends in present-day bourgeois philosophy (machism, neopositivism, pragmatism, existentialism).

Altruism (from French *altruisme*) – unselfish regard for the welfare of others. The term was introduced by Auguste Comte as an opposite to egoism.

Analogy (from Greek *analogia*: proportion, correspondence) – similarity of objects, phenomena or processes in some respects. Inference from analogy – knowledge derived from the examination of some object and transferred to a less familiar object with similar essential properties and qualities; such inferences are one of the sources of scien-

tific hypotheses. Analogy of being—a major principle of Roman Catholic scholastics, which contends that the existence of God can be inferred from the existence of the world he created.

Analysis (from Greek *analyein*: to break up)—1) mental or real dissection of a whole into elements; analysis is closely connected with synthesis (combination of elements into a whole); 2) synonym for scientific research in general; 3) in formal logic, specification of the logical form (structure) of an argument.

Animatism (from Latin *anima*: breath, soul)—faith in an impersonal supernatural power pervading nature or its various parts, a characteristic feature of primitive religions. Many scientists regard animatism as an earlier, pre-animistic phase in the development of religion. Thus, the Soviet researcher Shternberg (*Primitive Religion in the Light of Ethnography*, 1936) singled out three stages in the development of the primitive religious world outlook: 1) faith in a diffuse supernatural power animating the whole of nature (animatism); 2) “discovery of spirits”—nonmaterial beings in nature; 3) belief in the existence of a soul (animism).

Animism (from Latin *anima*: breath, soul)—belief in the existence of souls and spirits, a necessary element of any religion.

Annihilation (from Latin *annihilare*: to reduce to nothing)—in physics, one of the reactions

between elementary particles in which a particle and its anti-particle collide and disappear, releasing energy or turning into other particles, whose number and kind are limited by the laws of conservation. Thus, the annihilation of an electron-positron pair releases photons, and of a nucleon-antinucleon pair, particles in the class of mesons. The reverse process is called pair production.

Antagonism (from Greek *antagonisma*: contest, struggle) – a contradiction marked by an irreconcilable struggle of hostile forces or tendencies. In the society, antagonisms between opposite classes are resolved through class struggle and revolution.

Antagonistic contradiction – a form of contradiction peculiar to the modes of production and all social relations of exploitative class societies, and resolved through social revolution. Antagonistic contradictions are an expression of the irreconcilable interests of the oppressors and the oppressed, the exploiters and the exploited.

Atheism (from Greek *atheos*: godless) – disbelief in god; denial of the existence of a deity and so of religion. In the socialist countries, atheistic propaganda is an element of the communist education of the working people.

Being – a philosophical category denoting the existence of the objective world, matter and nature independently of human consciousness, and in the society, the process of material life.

The correlation of being and consciousness is the basic question of philosophy.

Bourgeoisie—the ruling class of the capitalist society, the owner of the means of production, exploiting wage labour. The source of its income is surplus value. The bourgeoisie consists of big, middle and small capitalists, with the decisive role in the capitalist society being played by the big bourgeoisie. When capitalism was on the rise, the bourgeoisie was a progressive class. Bourgeois revolutions of the 16th-19th centuries entrenched the economic and political rule of the bourgeoisie. With the emergence of the proletariat as an independent class in the mid-19th century, the bourgeoisie became ever more reactionary, turning under imperialism into the main obstacle to social progress. In the developing countries, the national bourgeoisie plays a dual role: it takes part in the anti-imperialist and anti-feudal movement, but as the class struggle in the country intensifies, a part of the national bourgeoisie goes over to the side of domestic reaction. Socialism eliminates the socio-economic conditions for the bourgeoisie's existence.

Castes—closed endogamic groups of people, set apart by the specific social functions of their members, hereditary occupations or professions (their members can belong to definite ethnic and sometimes religious communities). Castes form a hierarchy, and association among castes is strictly

limited. Archaic castes (estates or social ranks) existed in some ancient and medieval societies (ancient Egypt, India, Peru, and others). In India, stratification of the society on various principles, sanctified by the religious system of Hinduism, became all-embracing. In the 1940s, there were roughly 3,500 castes and subcastes in India.

The hierarchy of castes in medieval India included, from the top down, the Brahmans (priests), the warrior and landowner castes, which made up the class of big and middle feudal lords; the merchant and usurer castes; the castes of small feudal exploiters and landowners, who were full and equal members of the commune; and down below, numerous castes of landless and deprived peasants, handicraftsmen and servants, whose lowest stratum was made up of the "Untouchables", the most rightless and oppressed castes.

The 1950 Constitution of the Republic of India recognised the equal rights of all castes and the juridical equality of the "Untouchables".

Caste also means an exclusive social group, like the caste of the landed gentry or the officers' caste in the bourgeois society.

Categories (from Greek *kategoria*: assertion, predication) – the most general and fundamental concepts reflecting the essential and universal properties and relations of the phenomena of reality and knowledge. Categories are the result of a

generalisation of the true development of knowledge and social practice. The main categories of dialectical materialism include matter, motion, space and time, quality and quantity, contradiction, causality, necessity and chance, content and form, possibility and reality, essence and appearance, etc. With the development of objective reality and scientific knowledge, the system of dialectical categories is being developed and enriched.

Christianity—one of the three world religions (alongside Buddhism and Islam). It has three main branches: Roman Catholicism, Orthodoxy and Protestantism. The common feature of all the Christian denominations and sects is a belief in Jesus Christ as a man-god, the saviour of the world, and the second person of the Holy Trinity. The main source of the Christian faith is the Holy Scriptures (the Bible, especially its second part, the New Testament). Christianity emerged in the 1st century in Palestine, an eastern province of the Roman Empire, as a religion of the oppressed. The ruling classes gradually adapted it to their own ends; in the 4th century it became the predominant religion in the Roman Empire; in the Middle Ages, the Christian Church sanctified the feudal system; and in the 19th century, with the development of capitalism, it became one of the mainstays of the bourgeoisie, adopting a hostile attitude to socialism. The altered balance of forces in the world after the Second World War

and scientific progress induced the Christian Church to change its line, to start modernising its dogmas, cultic practices, organisation and policy.

Cognition – a process of reflection and reproduction of reality in thought conditioned by the development of socio-historical practice; interaction between the subject and the object, resulting in new knowledge about the world.

Concept – 1) a form of thought reflecting the essential properties, connections and relations of objects and phenomena. The main logical function of concepts is to single out the common, general features of a class of objects by way of abstraction from all their individual peculiarities; 2) in logic, a thought in which the objects within a class are generalised and distinguished from other objects on the strength of their common and generically specific features.

Concrete, the – a philosophical category expressing the unity and integrity of an object in all its diverse connections and relations. In dialectical materialism, the term is used in two senses: as an immediately experienced whole and as a system of scientific definitions bringing out the essential connections and relations of things, the uniformities and tendencies in the development of phenomena. The concrete is the opposite of the abstract; theoretical cognition is an ascent from the abstract to the concrete.

Condition – that on which something else

depends; the essential component of a set of objects (things, their states or interactions) which necessarily entails the existence of a given phenomenon.

Connection—an interdependence of phenomena separated in space and time. Connections are classified by form of motion of matter, by form of determinacy (simple, probability and correlational), by strength (rigid and corpuscular), by result (generation, transformation), by direction of effect (direct and reverse), by type of determined process (functional, developmental, control), by object content (ensuring a transfer of substance, energy or information).

Consciousness—one of the main concepts of philosophy, sociology and psychology denoting man's capacity for an ideal reproduction of reality in thought. In Marxist philosophy, consciousness is seen as an awareness of being, as a property of highly organised matter, as a subjective image of the objective world, and as the ideal in contrast to the material and in unity with it; in the narrow sense of the word, consciousness is the supreme form of psychic reflection, peculiar to socially developed man and connected with language, the ideal aspect of purposeful labour activity. Consciousness took shape on the basis and in the course of social practice. It has two forms: individual (personal) and social. Social consciousness is a reflection of social being; its forms include

science, philosophy, art, morality, religion, politics and law.

Contradiction (dialectical) — an interaction of opposite, mutually exclusive aspects of an object or a system, which at the same time are in internal unity and interpenetration, and are the source of the self-motion and development of the objective world and cognition. Expressing the essence of the law of unity and struggle of opposites, the category of dialectical contradiction occupies the central place in materialist dialectics. In its development, dialectical contradiction goes through several stages: difference, polarisation, collision, antagonism, reaching its highest point with the transformation of opposites into each other; at that stage, the dialectical contradiction is resolved and the system goes over from one qualitative state to another. Dialectical contradictions can be basic and non-basic, essential and inessential, internal and external (depending on their influence on the development of the system), antagonistic and non-antagonistic.

Contradiction (in formal logic) — the existence in an argument, text or theory of two statements, one of which denies the other; provability of the conjunction or equivalence of these statements; in a broader sense, assertion of the identity of evidently different objects. Contradiction here points either to the logical fallacy of the argument which led up to it, or to the incongruity of the

premises of that argument. That circumstance is often used to refute theories and propositions by reducing these to a contradiction, and also to furnish indirect proof. Absence of contradiction is an essential demand put to acceptable scientific theories.

Creative activity – an activity which engenders something qualitatively new, and which is original and unique in socio-historical terms. It is a specifically human activity, for it always presupposes a creator as the subject of creative activity; in nature, there is development, but no creativity.

Criterion – a trait or feature on whose basis something is assessed, defined or classified; standard of judgement.

Criterion of truth – a method for establishing the truth of knowledge and for distinguishing truth from delusion. Dialectical materialism assumes that practice is man's only direct connection with the objective world and that it is the only basis of cognition and criterion of truth.

Deism (from Latin *deus*: god) – a religious-philosophical doctrine which recognises god as a world mind, the creator of the "machine" of nature, who gave it purpose, laid down its laws and set it in motion, but which denies any further interference of god with the self-motion of nature (that is, Providence, miracles, etc.) and maintains that the only way to know god is by the use of reason. Deism was widespread among the thinkers of

the Enlightenment, and played an important role in the development of free-thinking in the 17th and 18th centuries.

Determinism (from Latin *determinare*: fix, limit) – a philosophical doctrine of the objective and law-governed interconnection and causal dependence of all phenomena; contrasts with indeterminism, which denies universal causality.

Development – irreversible, directional and law-governed change of matter and consciousness, their universal property; development leads to the emergence of a new qualitative state of the object, of its composition and structure. Development is a universal principle in explaining the history of nature, the society and knowledge. There are two dialectically interconnected forms of development: evolutionary, which is marked by gradual quantitative changes in the object, and revolutionary, which is marked by qualitative changes in the object's structure. Development can be progressive, along an ascendant line, and regressive, along a descendant line. The dialectico-materialist doctrine of development constitutes the philosophical and methodological foundation of the theory of the revolutionary transformation of society on communist principles.

Dialectics – theory and method of cognition of phenomena in their development and self-motion, science of the most general laws of the development of nature, the society and thought;

dialectics is opposed to metaphysics. The main stages in the history of dialectics include the spontaneous, naive dialectics of ancient thinkers (Heraclitus); Plato's dialectics of concepts, developed by neo-Platonism (Plotinus, Proclus); the dialectical teachings of Giordano Bruno and Nicholas of Cusa; the dialectics of classical German philosophy (Kant, Fichte, Schelling, Hegel); the dialectics of the 19th-century Russian revolutionary democrats (Herzen, Belinsky, Chernyshevsky). Materialist dialectics was elaborated by Marx and Engels on the basis of critically reworked earlier philosophical doctrines, and was developed by Lenin. The major categories of dialectics include contradiction, quality and quantity, necessity and chance, possibility and reality, etc.; its major laws are unity and struggle of opposites, transformation of quantity into quality, and negation of the negation.

Dogmatism – metaphysically one-sided, schematic and ossified thought operating with dogmas. Dogmatism is based on blind faith in authority and defence of obsolete propositions, usually marking religious thought. Dogmatism in the working-class movement leads to a vulgarisation of Marxism, to right and “left” opportunism, sectarianism, and political adventurism. Marxism-Leninism counters dogmatism with creative development of theory and the dialectical principle of concrete truth.

Eclecticism, or eclectics (from Greek *eklegein*: to select) – a mechanical combination of diverse and often opposite principles, views, theories, artistic elements, etc.; in architecture and the graphic arts, a combination of heterogeneous style elements or an arbitrary choice of style in designing buildings or handicraft wares with a qualitatively different meaning and purpose (as use of historical styles in 19th-century architecture and arts industry).

Empiricism (from Greek *empeiria*: experience) – a philosophical trend which, in contrast to rationalism, recognises sensory experience as the only source of true knowledge. Idealist empiricism (George Berkeley, David Hume, Ernst Mach, logical empiricism) limits experience to a complex of sensations, denying that experience is based on objective reality. Materialist empiricism (Francis Bacon, Thomas Hobbes, John Locke, the 18th-century French materialists) sees the objectively existing external world as the source of sensory experience. Its limitations are due to its metaphysical absolutisation of experience, of sensory cognition, and underestimation of the role of rational cognition (concepts, theories).

Evolution (from Latin *evolutio*: unrolling) – in the broad sense of the word, a process of change in the society or nature, its direction, sequence, laws and uniformities; a definite state of some system seen as the result of more or less protracted

changes in its preceding state; in the narrow sense of the word, slow and gradual quantitative changes in contrast to revolution. Dialectical materialism regards evolution and revolution as two interdependent aspects of development, and is against the absolutisation of either.

External and internal, the -philosophical categories; the external expresses the properties of the object as a whole and the character of its interaction with the surrounding environment, and the internal, the object's structure and essence; in cognition, the interconnection between the external and the internal is an advance from the former to the latter.

Fatalism (from Latin *fatum*: fate, fortune) - a belief that all events in the world are fixed in advance; faith in an impersonal destiny (ancient stoicism) or in divine predestination (especially characteristic of Islam), etc.

Fetishism (from French *fétiche*: idol, talisman) - a cult of inanimate objects, or fetishes, which are believed to have magical properties. Fetishism was widespread among all primitive peoples, and its vestiges in our day include faith in amulets, charms and talismans. It is also to be found in present-day religions: reverence for the Black Stone of Mecca (Islam) or the cross and relics (Christianity). Marx used the term fetishism in political economy.

Fideism (from Latin *fides*: faith) - a religious

world outlook asserting the primacy of faith over reason and characteristic of theist religions.

Formation – a category of dialectics denoting the process in which some material or ideal object is being formed. Any formation presupposes a transformation of possibility into reality in the course of development.

Galaxy, the – a system consisting of various types of stars, star clusters, galactic nebulae, interstellar gas and dust, dynamically connected into a single whole. Modern astronomy maintains that the forms of stars are diverse and that the stars are distributed unevenly throughout the Galaxy. As a system, the Galaxy is shaped like a gigantic ellipsoid (pinwheel or disk) compressed towards the plane of symmetry (edgewise, the disk is seen as the Milky Way). Scientists have proved the spiral structure of the Galaxy and its rotation around its axis. This rotation is complex and cannot be reduced to any ideal type of rotation of solid or liquid bodies. One galactic year, in which the Galaxy makes one full circle round its axis, lasts about 190 million years for most objects in the vicinity of the Sun. The Sun's velocity in this motion reaches 230 kilometres per second. The orbital period of the stars differs depending on the type of star and its distance from the galactic centre.

Our Galaxy is part of a vast system of galaxies, the so-called Metagalaxy, whose exploration is

only just beginning.

Geocentric (Ptolemaic) system of the world—an anthropocentric notion about the Earth as the centre of the Universe, which took shape in Greek antiquity and lasted into the late Middle Ages. According to the geocentric system, the planets, the Sun and other heavenly bodies revolve around the Earth in a complex pattern of circular orbits. The geocentric system of the world was eventually replaced by the heliocentric system.

Gnoseology, or epistemology (from Greek *gnosis* or *episteme*: knowledge)—see, Theory of knowledge.

Heliocentric system of the world—a notion about the structure of the Solar System which took shape during the Renaissance (Nicolaus Copernicus), showing the Sun as the central body with the planets revolving around it. The heliocentric system dealt a blow at the idea advocated by the Christian Church that the Earth was the centre of the Universe, so revolutionising the development of natural science.

Hylozoism (from Greek *hyle*, matter, and *zoe*, life)—a philosophical doctrine that all matter is animated. It was characteristic of early Greek philosophy (the Ionian school, Empedocles), to some extent of Stoicism, natural philosophy during the Renaissance (Bernardino Telesio, Giordano Bruno, Paracelsus), some 18th-century French materialists, including Denis Diderot,

Friedrich W. Schelling's natural philosophical school, etc.

Ideal, the – 1) the mode of being of an object reflected in consciousness (in this sense, the ideal is usually contrasted with the material); a result of the process of idealisation; an abstract object which cannot be given in experience (like “ideal gas” or “point”); 2) something perfect, corresponding to an ideal.

Idealism (from Greek *idea*: form or model) – all philosophical doctrines asserting that spirit, consciousness, thinking, the mental is primary, while matter, nature, the physical is secondary and derivative. Idealism contrasts with materialism in answering the basic question of philosophy: on the relation between being and consciousness, between the material and the spiritual. It emerged more than 2,500 years ago, while the term “idealism” as denoting one of the two opposite camps in philosophy first emerged in the early 18th century. Idealism has two main forms: objective and subjective. The former holds that an ultimate spiritual principle exists outside and independently of human consciousness, while the latter either denies the existence of any reality outside the subject's consciousness or regards it as something fully determined by the subject's activity. Idealism has many forms depending on how its advocates understand the ultimate spiritual principle: as a universal intellect (panlogism) or

universal will (voluntarism), as one spiritual substance (idealistic monism) or many spiritual elements (pluralism), as a rational and logically cognisable principle (idealistic rationalism), as a diversity of sensations (idealistic empiricism and sensualism, phenomenism), or as an illogical force ungoverned by any laws, which cannot be an object of scientific cognition (irrationalism). The leading objective idealists include Plato, Plotinus and Proclus in ancient philosophy, and Gottfried Wilhelm Leibniz, Friedrich Wilhelm Schelling and Georg Wilhelm Friedrich Hegel in modern times. Subjective idealism is most vividly expressed in the doctrines of George Berkeley, David Hume and the early Johann Gottlieb Fichte (18th century). In our epoch, the idealist trends predominating in bourgeois philosophy include neopositivism, existentialism, phenomenology and neo-Thomism. Marxism-Leninism, whose philosophical basis is dialectical materialism, has been developing in a struggle against all forms of idealism.

Ideology—a system of political, legal, ethical, religious, aesthetic and philosophical views and ideas, expressing and appraising man's attitude to reality. In class societies, ideology has a class nature, expressing the interests and formulating the goals of definite classes; it is elaborated by ideologues of those classes, on the strength of material accumulated by earlier thinkers. The

nature of an ideology – scientific or unscientific, true or false, illusory – is always connected with its class origins: feudal, bourgeois, petty-bourgeois or proletarian, socialist, Marxist; revolutionary or reactionary, progressive or conservative. It is relatively independent and exerts an active influence on the society, accelerating or obstructing its development. Marxism-Leninism, the truly scientific ideology, rejects the conceptions of a peaceful coexistence of ideologies or “de-ideologisation”.

Image – 1) a result and an ideal form of the reflection of objects and phenomena of the material world in the human consciousness. At the sensory stage of cognition, images relate to sensation, perception and representation; and at the mental stage, to concepts, judgements and inferences. Images are embodied in the material form of practical action, language and various sign models. In terms of content, the image is objective in so far as it adequately reflects the object; 2) artistic image – a mode and form of assimilation of reality in art, in which sensory elements and meaning are intertwined.

Inference – a mental act on the basis of reasoning standards peculiar to the individual consciousness, which largely coincide with the rules and laws of logic.

Infinite and finite, the – philosophical categories expressing two opposite and inseparable aspects

of the objective world. The infinite characterises matter as a whole, its uncreatable and indestructible nature, the quantitative inexhaustibility of matter in depth, and the infinite variety of its properties, connections, forms of being and tendencies of development. The finite characterises any concrete phenomena or objects, which exist in certain spatial and temporal boundaries. The finite is a form of manifestation of the infinite, while the latter consists of an infinite number of finite objects and phenomena. Through cognition of the finite, science is gaining ever deeper knowledge of the infinite in the world.

Interaction—a philosophical category reflecting the processes in which objects act upon each other, their mutual dependence and generation of one object by another. Interaction is an objective and universal form of motion and development, and determines the existence and structural organisation of any material system.

Islam—one of the most widespread religions (alongside Christianity and Buddhism), whose followers are called Moslems and which was founded by Mohammed in Arabia in the 7th century A.D. As a result of Arabian conquests, it spread across the Middle East and later on to some countries of the Far East, South-East Asia and Africa. The main principles of Islam are set forth in the Koran. Its main dogma is worship of Allah as the Supreme Being and Mohammed as

his prophet. Its main lines are Sunnism and Shiism.

Knowledge—a practically tested result of man's cognition of reality, its correct reflection in human thought.

Language—1) natural language, the crucial means of human communication. Language is inseparable from thought, and is a social medium for storing and transferring information, one of the means of controlling human behaviour. It is realised and exists in speech. The languages of the world differ in structure, vocabulary, etc., but all languages are marked by some common uniformities, by a systemic organisation of language units (like paradigmatic and syntagmatic relations between them), and so on. Languages change in the course of time, and can go out of spoken use (dead languages). Varieties of language (national language, literary language, dialectics, cultic language, etc.) play different roles in the life of the society; 2) any system of signs, like mathematical language, language of jestures, of the cinema, etc.; 3) same as style (language of a novel, newspaper language).

Law—a necessary, essential, stable and recurrent relation between phenomena in nature and the society. The concept of law is akin to the concept of essence. Law is a form of universality (Engels), for it expresses general relations and connections intrinsic to all phenomena of a given

type or class. There are three main groups of laws; specific or particular (like the law of composition of velocities in mechanics); general laws for large groups of phenomena (like the law of conservation and transformation of energy or the law of natural selection); and universal laws (the laws of dialectics). There is a dialectical interconnection between general and particular laws: general laws operate through particular laws, while the latter are manifestations of the former. Laws are objective and exist independently of human consciousness. Cognition of laws is the task of science, laying a groundwork for man's transformation of nature and the society.

Leap—a radical breakthrough in development, a qualitative transformation of an object or phenomenon as a result of quantitative changes. There are two fairly definite types of leap: abrupt (like the transformation of some elementary particles into others) and gradual (like qualitative changes in plant and animal species). In social life, the first type of leap is typical of antagonistic formations (social upheavals, revolutions); and the second type, of socialism, under which qualitative changes in the society are gradual in view of the unity of social interests.

Marxism-Leninism—the scientific ideology of the working class, an integral and developing system of philosophical, economic and socio-political views. As a science about the universal laws of the

development of nature, the society and thought, the laws of the development of social production, the emancipation struggle of the proletariat and all the other working people against social and national oppression, the laws of socialist revolution and of socialist and communist construction, Marxism-Leninism is the methodological basis of cognition and revolutionary establishment of new and higher forms of the society.

The transformations that have occurred under the banner of Marxism-Leninism have radically changed the present-day world. It is connected with such outstanding revolutionary feats as the Great October Socialist Revolution, the building of a developed socialist society in the USSR, the formation and development of the socialist community, social and national liberation battles, and victories scored by the working class and the other working people over the old social system. Marxism-Leninism exerts an ever growing influence on mankind's development.

Materialism (from Latin *materia*: matter, physical substance) - a philosophical trend which assumes that the world is material and exists objectively, outside and independently of consciousness, that matter is primary, was not created by anyone and exists eternally, that consciousness, thinking, is a property of matter, and that the world and its laws are cognisable. Materialism is opposed to idealism, and their struggle

constitutes the content of the historico-philosophical process. The term "materialism" was used in the 17th century largely in the sense of physical notions about matter, and since the early 18th century, it has been used in the philosophical sense, in contrast to idealism. The historical forms of materialism include the materialist doctrines of the ancient East, the materialism of antiquity (Democritus, Epicurus), Renaissance materialism (Bernardino Telesio, Giordano Bruno), the metaphysical (mechanistic) materialism of the 17th-18th centuries (Galileo Galilei, Francis Bacon, Thomas Hobbes, Pierre Gassendi, John Locke, Benedict Spinoza), 18th-century French materialism (Julien Offroy de LaMettrie, Claude Adrien Helvetius, Paul Henri Holbach, Denis Diderot), anthropological materialism (Ludwig Feuerbach), the materialism of the Russian revolutionary democrats (Vissarion Belinsky, Alexander Herzen, Nikolai Chernyshevsky, Nikolai Dobrolyubov). Dialectical and historical materialism was created in the mid-19th century by Marx and Engels and was developed by Lenin in the new historical situation. The whole course of scientific and social development reaffirms the truth of dialectical and historical materialism as the highest forms of philosophical materialism.

Matter— "a philosophical category denoting the objective reality which is ... reflected by our sensations, while existing independently of them"

(V. I. Lenin); substance; substratum (basis) of all properties, connections and forms of motion actually existing in the world; infinite diversity of all the objects and systems existing in the world. Dialectical materialism starts from the principle of the material unity of the world and the primacy of matter in relation to consciousness. Matter is uncreatable and indestructible, infinite and eternal. Motion is an inherent attribute of matter; matter is marked by self-development and a change of states. Space and time are the universal objective forms of matter, and reflection is its universal property. Modern science knows the following types of material systems and corresponding structural levels of matter: elementary particles and fields, atoms, molecules, microscopic bodies of different size, geological systems, planets, stars, intra-galactic systems, galaxies, systems of galaxies. Special types of material systems: living matter (organisms capable of self-reproduction) and socially organised matter (the society).

Mechanicism—a one-sided principle of world outlook, put forward in the 17th and 18th centuries, which explains the development of nature and the society by the laws of the mechanical form of the motion of matter. Mechanicism derives from an absolutisation of the laws of mechanics, which leads to a metaphysical picture of the world. In the broad sense of the word,

mechanicism means reduction of some complex and qualitatively distinct form of motion to a simpler one (like social to biological).

Meditation (from Latin *meditatio*: reflection) – a mental act enabling a person to reach a state of introspection and concentration. The body of the meditating person is relaxed, he shows no sign of emotion, and takes no notice of external objects. The methods of meditation are diverse. It plays an important role in Indian philosophy and religion, especially Yoga; in ancient Greece, it was used in Pythagoreanism, Platonism and neo-Platonism; and is a feature of Sufi mysticism and to some extent of Orthodoxy and Roman Catholicism. An interest in meditation and its psychotherapeutic aspects is typical of some trends of psychoanalysis (Carl Gustav Jung).

Metaphysics (from Greek [*ta*]*meta*[*ta*]*physika*: the [works] after the physics) – 1) a philosophical doctrine on the supersensible (inaccessible to experience) principles of being. The term goes back to the title given by Andronicus of Rhodes (1st century B.C.) to Aristotle's treatise on the mentally comprehensible principles of being. In present-day bourgeois philosophy, the term metaphysics is often used as a synonym of philosophy; 2) a philosophical method which is the opposite of dialectics and which regards phenomena in isolation from each other and denies internal contradictions as the source of their development.

Method (from Greek *methodos*: way of inquiry, theory, doctrine) – a procedure or process for attaining some goal or solving a concrete problem; a body of techniques or operations used in the practical or theoretical assimilation (cognition) of reality. In philosophy, method is the mode in which a system of philosophical knowledge is formulated and substantiated. The method of the Marxist-Leninist philosophy is materialist dialectics.

Methodology – a doctrine on the structure, logical organisation, methods and means of activity; methodology of science – a doctrine on the principles, forms and modes of scientific cognition. In Marxism-Leninism, dialectical and historical materialism is the general methodology of scientific research. The Marxist-Leninist methodology is an instrument not only of theoretical cognition, but also of revolutionary transformation of reality.

Monism (from Greek *monos*: alone, single) – a view that the diverse phenomena of the Universe can be reduced to a single element (ultimate substance). Monism contrasts with dualism (which assumes the existence of two independent elements) and pluralism (which assumes a plurality of elements). The highest and only consistent form of monism is dialectical materialism, which maintains that all the diverse phenomena of nature, the society and the human consciousness

are products of developing matter.

Motion—the mode of existence of matter, its major attribute; in the broadest sense of the word, change in general, any interaction of material objects. Dialectical materialism holds that matter and motion are in unity: there is no matter without motion, just as there is no motion without matter. The motion of matter is absolute, whereas any rest is relative and is an element of motion. (Thus, a body which is at rest in relation to the Earth revolves together with it around the Sun, etc.) Motion is a unity of opposites: change and stability (with change playing the leading role), discontinuity and continuity, absolute and relative. The main forms of motion include mechanical, physical (heat, electromagnetic, gravitational, atomic and nuclear), chemical, biological and social. The higher forms of the motion of matter emerge historically, on the basis of relatively lower ones, and include these in altered form, in accordance with their own structure and development laws; the higher forms of motion are qualitatively distinct from the lower ones and cannot be reduced to these.

Object—a philosophical category expressing that which confronts the subject in his material practice and cognitive activity. Objective reality, which exists independently of man and his consciousness, is an object for the cognising individual in the various forms of activity, language and

knowledge elaborated in the course of history.

Ontology (from Greek *onto*: being, existence, and *logos*: word) – philosophical theory of being (in contrast to gnoseology, or theory of knowledge), which deals with the universal and basic principles of being, its structure and laws. Up to the 19th century, ontology was based on metaphysical notions about the inner essences of things, and was of a speculative nature. Marxism overcame that understanding of ontology and showed the necessary connection and unity of ontology, the theory of knowledge and logic.

Opposite – a philosophical category reflecting one of the sides of a dialectical contradiction.

Part and whole – philosophical categories expressing the relation between an aggregate of objects and the objective connection which unites them and leads to the emergence of new properties and uniformities. This connection is known as the whole, and the various objects, as its parts. The properties of the whole cannot be reduced to the properties of its parts. Inorganic wholes (atoms, crystals, etc.) and organic wholes (biological organisms, the society) are capable of self-development.

Partisanship (party commitment) – 1) membership of a political party; 2) the ideological orientation of a world outlook, philosophy, social science, literature and art, reflecting the interests

of definite classes or social groups and manifesting itself both in the social tendencies of science and art, and in personal attitudes and positions. In the broad sense of the word, this means the principles of human behaviour, the activity of organisations, and political and ideological struggle. Party commitment is the result and political expression of developed class opposites; it is closely connected with the activity of political parties. Party commitment is a deliberate and openly proclaimed principle of Marxism-Leninism, which means a blend of scientific analysis of reality and consistent defence of working-class interests, which coincide with the interests of all the other working people and agree with the objective course of history. The communist party opposes the bourgeois and revisionist conceptions of objectivism, non-party approach, deideologisation, and peaceful coexistence of ideologies, and calls for resolute criticism of bourgeois ideology, for a party, class approach in all spheres of activity.

Perception—a complicated process through which the organism receives and processes information and which enables one to reflect objective reality and get one's bearings in the surrounding world. As a form of sensory reflection, it includes detection of the object in the field of perception, discernment of its separate features, identification of its meaningful content corresponding to the

purpose of action, and formation of an image of the perceived object.

Philosophy - a form of social consciousness, world outlook, system of ideas and views of the world and man's place in it; examines man's cognitive, value, ethical and aesthetic attitude to the world. The Marxist-Leninist philosophy is a science of the universal laws of the development of nature, the society and thought, a general methodology of scientific cognition. As a world outlook, philosophy is closely tied in with class interests, with political and ideological struggle. Being conditioned by social reality, it exerts an active influence on social being, and helps to form new ideals, standards and cultural values. Based on man's theoretical and practical attitude to reality, philosophy brings out the interrelations between the subject and the object. Its basic question is that of the relation between matter and spirit, being and consciousness, and of the knowability of the world, and the content of the historico-philosophical process is a struggle between materialism and idealism. The historically shaped main fields of philosophy include ontology (doctrine of being), gnoseology (theory of knowledge), logic, ethics, and aesthetics. Opposite trends have taken shape in the solution of diverse philosophical problems: dialectics and metaphysics, rationalism and empiricism (sensualism), naturalism and spiritualism, determinism and in-

determinism, etc. Among the historical forms of philosophy are the philosophical doctrines of ancient India, China and Egypt; the philosophy of Greek antiquity, or the classical form of philosophy (Parmenides, Heraclitus, Socrates, Democritus, Epicurus, Plato, Aristotle); medieval philosophy – patristics and subsequent scholastics; the philosophy of the Renaissance (Galileo Galilei, Bernardino Telesio, Nicholas of Cusa, Giordano Bruno); modern philosophy (Francis Bacon, René Descartes, Thomas Hobbes, Benedict Spinoza, John Locke, George Berkeley, David Hume, Gottfried Wilhelm Leibniz); 18th-century French materialism (Julien Offroy de LaMettrie, Denis Diderot, Claude Adrien Helvetius, Paul Henri Holbach); classical German philosophy (Immanuel Kant, Johann Fichte, Friedrich Schelling, Georg Hegel); Ludwig Feuerbach's doctrine, which had a strong influence on the formation of the philosophical views of Marx and Engels; the philosophy of the Russian revolutionary democrats (Vissarion Belinsky, Alexander Herzen, Nikolai Chernyshevsky, Nikolai Dobrolyubov); the main lines of present-day bourgeois philosophy (varieties of idealism): neopositivism, pragmatism, existentialism, personalism, phenomenology, neo-Thomism. The philosophy of Marxism-Leninism, founded by Marx and Engels and developed by Lenin in the new historical conditions, is dialectical and historical materia-

lism, the methodological and world-outlook basis of scientific cognition and revolutionary-transformative activity of the communist parties.

Practice (from Greek *praktikos*: active) – purposeful material activity of men; mastery and transformation of objective reality; universal basis of the development of the society and cognition. The two main types of practice are the production of material values and the socially transformative, revolutionary activity of the masses (class struggle, social revolutions, socio-political activity). Both in mode and content, practice is a social phenomenon. Its structure includes need, purpose, motive, purposeful activity, object, instruments, and result. As the basis and driving force of cognition, practice provides science with factual material for subsequent theoretical study, and determines the structure, objective content and direction of human thinking. Practice is the criterion of true knowledge. The Marxist understanding of practice is fundamentally different from its idealist and revisionist conceptions in that Marxism recognises the independence of the object of practice – the material world – from the human consciousness and has included practice into the theory of knowledge as the criterion of truth. Forming a dialectical unity with theory, practice is the basis of that unity. The dialectical interconnection of theory and practice is a crucial principle of Marxism-

Leninism.

Property—a philosophical category expressing that aspect of the object which determines its distinction from or similarity with other objects, and which manifests itself in the object's relations with the latter.

Quality—a philosophical category expressing the essential determinacy of an object, which makes it what it is. Quality is an objective and universal characteristic of objects, manifesting itself in the totality of their properties.

Quantity—a philosophical category expressing the object's external determinacy: its size, number, volume, degree of development of its properties, etc.; once a change in quantity reaches a definite measure, it entails a change in quality.

Reality—that which actually exists; dialectical materialism distinguishes between objective reality, i. e., matter, and subjective reality, i. e., the phenomena of consciousness.

Relativism (from Latin *relativus*: relational)—a methodological principle amounting to a metaphysical absolutisation of the relativity and tentativity of our knowledge, which leads to a denial of the possibility of knowing objective truth, to agnosticism. Dialectical materialism recognises the relativity of our knowledge, but not as a denial of objective truth but only in the sense that man's approach to that truth is historically limited.

Religion – a world outlook and perception of the world, and also corresponding behaviour and specific action (cult) based on a belief in the existence of a God or gods, of “the sacred”, that is, some variety of the supernatural; “the fantastic reflection in men’s minds of those external forces which control their daily life, a reflection in which the terrestrial forces assume the form of supernatural forces” (Frederick Engels). Among its earliest manifestations are magic, totemism, fetishism, animism, etc. The historical forms of religion include tribal, national-state (ethnic) and global (Buddhism, Christianity, Islam). Religion originated from the primitive man’s helplessness in the struggle against nature, and later on, upon the emergence of antagonistic-class societies, from his helplessness in face of the spontaneous social forces which dominate human life. The founders of Marxism-Leninism noted that religion would gradually disappear with the development of socialism, that it was bound to disappear as a result of social development, in which education plays a major role.

Representation – the image of an earlier perceived object or phenomenon (remembrance, recollection) or an image created by productive imagination; the highest image-bearing form of sensory reflection.

Roman Catholicism – one of the main branches of Christianity. It is the leading religion in Italy,

Spain, Portugal, France, Belgium, Austria, and Latin America. In the socialist countries, Roman Catholics prevail among the believers in Poland, Hungary, Czechoslovakia and Cuba. In the USSR, there are Roman Catholics in the Baltic Republics (mostly in Lithuania), in the Western regions of Byelorussia and the Ukraine. The Christian Church was divided into Roman Catholic and Orthodox in the period from 1054 to 1204; in the 16th century, Protestantism split away from the Roman Catholic religion. The Roman Catholic Church is strictly centralised and hierarchical; its monarchic centre is the papacy, with the Pope of Rome as its sovereign and the Vatican as the papal headquarters. The sources of its doctrine are the Holy Scriptures and Christian tradition. The peculiarities of Roman Catholicism (primarily, as compared with Orthodoxy) include the addition of filioque to the Christian creed (the dogma of the Trinity); dogmas on the immaculate conception of the Virgin Mary and her assumption, on the infallibility of the Pope; a sharp distinction between the clergy and the laity; and celibacy. The changes in the balance of forces in the world after the Second World War and scientific progress led to a crisis of religion, including Roman Catholicism. Since the 1960s, the Roman Catholic Church has been trying to overcome the crisis by modernising its dogmas, cultic practices, organisation and policy.

Science—a sphere of human activity whose function is to acquire and theoretically systematise objective knowledge about reality; one of the forms of social consciousness; activity in acquiring new knowledge and, at the same time, the result of such activity, the sum-total of knowledge constituting a scientific picture of the world; separate branches of scientific knowledge. Its immediate goals are to describe, explain and forecast the processes and phenomena of reality on the basis of the laws it discovers. The system of sciences is tentatively divided into natural, social and technical. Science is connected with philosophy, ideology and politics, which determines the partisan nature of social science and the important world-outlook role of natural science. Having first emerged in the ancient world in response to the needs of social practice, science began to take shape in the 16th and 17th centuries, turning in the course of historical development into a productive force and a major social institution, which has a considerable influence on all spheres of the society. The emergence of Marxism amounted to a revolution in the development of social science. Since the 17th century, the volume of scientific activity (discoveries, scientific information, number of research workers) has been doubling roughly every 10-15 years. The development of science is an alternation of extensive and revolutionary periods, when scientific revolutions

lead to changes in its structure, principles of knowledge, categories and methods, and also the forms of its organisation. Science is marked by a dialectical interplay of differentiation and integration processes, the development of fundamental and applied research. During the scientific and technical revolution, an integral science-technology-production system has taken shape, with science playing the leading role. Under capitalism scientific achievements are largely used in the interests of the ruling monopoly bourgeoisie. Under socialism, science plays a major role in building the material and technical basis of communism, perfecting social relations, and forming the new man; science here is planned on a nationwide scale.

Self-motion—an internally necessary and spontaneous change in the system, determined by its contradictions.

Sensation—a reflection of the properties of objective reality resulting from their impact on the sense organs and excitation of the brain; the starting point in man's cognition of the world. Sensations can be tactile, visual, auditory, olfactory, vibratory, etc.). The qualitative specifics of various sensations is known as their modality.

Space—see, *Space and time*

Space and time—universal forms of the existence of matter. Space is the form of existence of material objects and processes, characterising the struc-

ture and extension of material systems, and time is a form of the sequence of phenomena and states of matter, characterising their duration. Space and time are objective, inseparable from matter, closely connected with its motion and with each other, and are infinite in quantitative and qualitative terms. The universal properties of time are duration, non-recurrence, and irreversibility, and the universal properties of space are extension and unity of continuity and discontinuity.

Spontaneous materialism—materialism in natural science, a historico-philosophical concept meaning an “instinctive ... philosophically unconscious conviction shared by the overwhelming majority of scientists regarding the objective reality of the external world” (V. I. Lenin). Spontaneous materialism does not go beyond the framework of one-sided, mechanistic materialism. At the same time, such materialism marks the philosophical views of many leading natural scientists, whose discoveries have enriched the dialectical methodology.

State—a category of scientific cognition characterising the capacity of matter in motion to manifest itself in diverse forms with their intrinsic essential properties and relations. The category of state is used to express the process of change and development of things and phenomena, which ultimately amounts to a change of their properties and relations. The totality of these properties

and relations determines the state of a thing or phenomenon. That is why a characterisation of the state of things and their systems is extremely important for understanding their essence.

Structure (from Latin *structura*: building, arrangement, order) – the aggregate of an object's lasting connections, which ensure its integrity and self-identity, i. e., retention of its main properties in the course of various external and internal changes.

Subject (from Latin *subjectus*: thrown under, lying below) – the vehicle of material practice and cognition (individual or social group), the source of activity directed at the object. By showing the socio-historical nature of the subject, Marxism showed that the popular masses are the true subject of history.

Subjective – something peculiar to a subject or deriving from his activity; a characteristic of knowledge at those of its points which do not reproduce the object quite accurately or fully.

Subjectivism – a world-outlook posture which ignores the objective laws of nature and the society; one of the gnoseological sources of idealism, the philosophical basis of revisionism and voluntarism in politics.

Substance (from Latin *substantia*: essence, standing under) – 1) objective reality; matter in the unity of all the forms of its motion; something relatively stable; that which exists on its own and

does not depend on anything else; 2) a type of matter consisting of discrete (individually distinct) elements with a rest mass (atoms, molecules, and their combinations).

Substratum (from Latin *substernere*: to spread under) – common material basis of all processes and phenomena.

Survivals of the past – “residual” phenomena (social relations, traditions, customs, standards of behaviour, ideas, notions, preferences) remaining in the conditions of a new social system, at a higher level of socio-economic and cultural development. Upon the victory of a socialist revolution, some “birthmarks” of capitalism and other systems persist in economic life, in administration, and in the consciousness and behaviour of a section of the people. Among those are crime, a dishonest attitude to work and social property, alcohol abuse, hooliganism, and other breaches of the rules of socialist community living and the principles of communist morality; nationalist, religious and individualist views. Development of socialist social relations, the socialist way of life, moulding of the new man, and efforts to create an atmosphere of general intolerance of such survivals lead to their eradication.

Synthesis (from Greek *syntithenai*: to put together) – mental or real combination of different elements into a whole (system); synthesis is inseparable from analysis (dissection into elements).

System (from Greek *systema*: a whole made up of parts, a combination) – a group of interrelated and interconnected elements forming an integral whole. Systems can be material and abstract. The former are divided into inorganic (physical, geological, chemical, etc.) and living (the simplest biological systems, organisms, populations, species, ecosystems); social systems (from the simplest associations to the society's socio-economic structure) form a special class of material living systems. Abstract systems include concepts, hypotheses, theories, scientific knowledge about various systems, linguistic, formalised, logical systems, etc. In modern science, systems are studied within the framework of the systems approach, diverse special theories of systems, cybernetics, systems engineering, systems analysis, etc.

Systems approach – a branch of the methodology of scientific cognition and social practice based on the examination of objects as systems; it orients the researcher to bring out the integrity of the object, discern the diverse types of connection within it, and put these together into a unified theoretical picture. The systems approach is applied in biology, ecology, psychology, cybernetics, technology, economics, management, etc. It is closely connected with materialist dialectics, concretising its basic principles.

Tendency – 1) the direction of the development of some phenomenon or idea; 2) in art, a) a com-

ponent of the artistic idea: the ideological and emotional orientation of a work of art, the author's view and appraisal of the problems and characters as expressed through a system of images; b) in the narrow sense, the author's social, political or moral preferences not coded in images and openly expressed in a realistic work of art aimed at an objective portrayal of reality.

Theism (from Greek *theos*: god) – a religious world outlook which views god as a transcendental ultimate being, which created the world and is still involved in its affairs. In contrast to pantheism, theism believes in god's transcendental nature, and in contrast to deism, it maintains that god is still active in the world. It is a feature of genetically related religions: Judaism, Christianity and Islam.

Theology – a body of religious doctrines on the essence and operation of god, conceived as a personal and absolute god, who makes himself known to man through divine revelation. In the strict sense of the word, theology usually applies to Judaism, Christianity and Islam. The authoritarian nature and dogmatic content of theology make it incompatible with the principles of free philosophical and scientific thought.

Theory (from Greek *theoria*: examination, inquiry) – a system of basic ideas in some field of knowledge; a form of scientific knowledge presenting an integral picture of the laws and essen-

tial connections of reality. The criterion of its truth and the basis of its development is practice.

Theory of knowledge (gnoseology, epistemology) — a section of philosophy studying the laws and possibilities of cognition, the relation of knowledge (sensations, representations, concepts) to objective reality, the stages and forms of the cognitive process and the conditions and criteria of its truth and authenticity. Idealism and materialism are the two main lines in the theory of knowledge. Idealism reduces cognition to self-cognition by a World Spirit (Hegel) or to an analysis of a complex of sensations (Berkeley, Machism), denies the possibility of knowing the essence of things (Hume, Kant, positivism), rejects the theory of knowledge as a philosophical science (neopositivism, linguistic philosophy). Materialism assumes that knowledge is a reflection of the material world (Democritus, Bacon, Locke, the 18th-century French materialists). Pre-Marxian materialism — metaphysical and contemplative — could not bring out the dialectics of the cognitive process. The theory of knowledge of dialectical materialism regards socio-historical practice as the basis of knowledge and the criterion of truth; all our knowledge is a reflection of the objective world, its connections and uniformities comprehended in the course of such practice. Cognition develops “from living perception to abstract thought, *and from this to practice*”

(V. I. Lenin). Generalising the methods used by modern science (experiment, modelling, analysis and synthesis, etc.), the theory of knowledge constitutes its philosophico-methodological basis.

Thesis (from Greek *thesis*: proposition, assertion)—1) in the broad sense of the word, any assertion in an argument of the presentation of some theory; in the narrow sense, a basic proposition or principle; 2) in logic, a proposition to be proved.

Thing—a relatively independent and stable object of material reality.

Thought (thinking)—the highest stage of human cognition, of the reflection of objective reality. It enables man to acquire knowledge about such objects, properties and relations of the real world which cannot be immediately perceived at the sensory stage of cognition. Human thought has a socio-historical nature and is inseparably connected with practical activity. The forms and laws of thought are studied by logic, and its mechanisms, by psychology and neurophysiology. Cybernetics analyses thought with a view to the technical modelling of some mental operations.

Truth—an adequate reflection of objects and phenomena of reality by the cognising subject, which reproduces them as they exist outside and independently of the human consciousness; the objective content of human knowledge. Objective

truth is a truth whose content does not depend on man or mankind (truth is objective in content, but subjective in form, as a result of man's mental activity); relative truth is a truth which reflects an object only partially, within historically set limits; absolute truth is a truth which fully exhausts the object of cognition, an ultimate knowledge of some aspects of reality. Any relative truth contains an element of absolute knowledge. Truth is a sum-total of relative truths. Concrete truth is one which brings out some essential elements of the object with a view to the concrete conditions of its development (there is no abstract truth, truth is always concrete). Practice is the criterion of truth.

Unconscious, the—in the broad sense of the word, the totality of psychic processes, operations and states not represented in the subject's consciousness. In some psychological theories, the unconscious is seen as a special sphere of the psyche or a system of processes qualitatively distinct from the phenomena of consciousness. The term is also used to characterise individual and group behaviour whose actual goals and consequences are not realised by the subjects.

Universe, the—the whole existing material world, eternal in time, infinite in space, and endlessly diverse in the forms assumed by matter in the course of its development. The Universe being studied by astronomy is a part of the mate-

rial world which can be explored by modern astronomical instruments (that part of the Universe is often called the Metagalaxy).

Voluntarism (from Latin *voluntas*: will) – 1) an idealist trend in philosophy which regards the will as the supreme principle of being. As an independent trend, it first took shape in Schopenhauer's philosophy; 2) activity which ignores the objective laws of history and which is marked by arbitrary decisions on the part of the persons concerned.

Vulgar materialism – a trend in mid-19th century bourgeois philosophy, whose representatives (Karl Vogt, Ludwig Büchner, Jakob Moleschott) simplified the materialist world view to an extreme, denied the specifics of consciousness, and identified it with matter (“the brain secretes thought just as the liver secretes bile”). Vulgar materialism was criticised by Engels in *Anti-Dühring*.

World outlook – a system of generalised views on the objective world and man's place in it, and on people's attitude to the surrounding reality and to themselves, and also their convictions, ideals, and principles of knowledge and activity stemming from these views. It is formed on the basis of natural-science, socio-historical, technical and philosophical knowledge, including a definite ideology; its vehicle is the individual and the social group, perceiving reality through the prism

of a definite world outlook. It is of great practical importance, influencing human behaviour standards, vital aspirations, interests, work and everyday life. In the class society, world outlook has a class nature, and reflects differences in social status and living conditions. In its content and direction, it can be scientific or non-scientific, materialist or idealist, atheistic or religious, revolutionary or reactionary. The present-day world is the scene of an intensive struggle between the communist and the bourgeois world outlooks. The communist world outlook, whose core is the Marxist-Leninist philosophy as an instrument of the revolutionary transformation of the world, is predominant in the socialist society; its formation among broad masses of the working people is the main purpose of the communist party's ideological education work.

REQUEST TO READERS

Progress Publishers would be glad to have your opinion of this book, its translation and design and any suggestions you may have for future publications.

Please send all your comments to 17, Zubovsky Boulevard, Moscow, USSR.

abc

OF SOCIAL AND
POLITICAL KNOWLEDGE

Books of the Series ABC of Social and Political Knowledge

1. A Reader on Social Sciences
2. What Is Marxism-Leninism?
3. What Is Political Economy?
4. What Is Philosophy?
5. What Is Scientific Communism?
6. What Is Dialectical Materialism?
7. What Is Historical Materialism?
8. What Is Capitalism?
9. What Is Socialism?
10. What Is Communism?
11. What Is Labour?
12. What Is Surplus Value?
13. What Is Property?
14. What Are Classes and the Class Struggle?
15. What Is the
16. What Is the S
17. What Is Revolu
18. What Is the
riod?
19. Wh. *the Working*
People's Power?
20. What Is the World
Socialist System?

Imported by
**IMPORTED
PUBLICATIONS, INC**
329 West Ohio Street
Chicago, Illinois 60610
Phone 312-737-9017