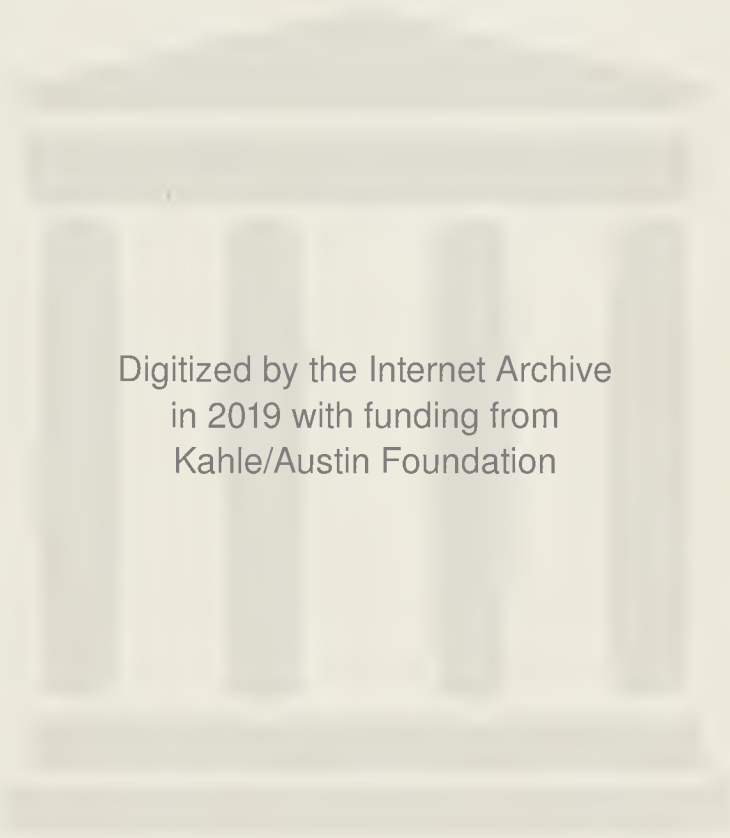
Fundamentals of Dialectics

Yu.A.Kharin



Yu. A. Kharin

Fundamentals of Dialectics

PROGRESS
PUBLISHERS
MOSCOW

Translated from the Russian
by **Konstantin Kostrov**

Edited by **Armorer Wason**

Designed by **Boris Kuznetsov**

Ю. А. ХАРИН
НАЧАЛА ДИАЛЕКТИКИ

На английском языке

Printed in the Union of Soviet Socialist Republics

X $\frac{10502—758}{014(01)—81}$ 21-81

0302020100

Contents

Introduction 7

Chapter I

PHILOSOPHY: THE THEORETICAL BASIS OF MAN'S WORLD OUTLOOK 12

1. What Is Philosophy? 12
2. The Fundamental Question of Philosophy 15
3. Partisanship of Philosophy: Materialism and Idealism. . 17
4. Historical Forms of Materialism 24
5. Forms of Idealism 29

Chapter II

THE ESTABLISHMENT OF A SCIENTIFIC PHILOSOPHY 33

1. The Social Necessity for a New Type of Philosophical Outlook on the World 33
2. The Philosophical Predecessors of Marxism 36
3. The Revolution in Philosophy 41
4. The Proletariat's Scientific Ideology 46
5. Marx and Lenin 48

Chapter III

THE WORLD AS LAW-GOVERNED MOVEMENT OF MATTER 53

1. The Evolution of the Concept of Matter 54
2. The Infinity of Nature 58
3. Motion and Rest 61
4. The Objective Reality of Space and Time 64
5. The Interconnection Between the Universal Attributes of Matter 67
6. The Self-Development of Matter 70
7. Basic Forms of Motion 73

8. Consciousness as a Function of the Brain 75
9. The Unity of the World 79

Chapter IV

THE SOCIAL ESSENCE OF CONSCIOUSNESS 81

1. Forms of Reflection in Nature 81
2. Animal Psyche 84
3. Man: Conceptual Thinking 86
4. Goal-Positing and Self-Consciousness 89
5. Consciousness and Language 90
6. The Structure of Individual Consciousness 91
7. Individual and Social Consciousness 93
8. Social Psychology and Ideology 97
9. The Unconscious Element in Man's Psyche 99
10. The Creative Force of Consciousness 101
11. The Struggle of Ideas 105

Chapter V

DIALECTICS: THE UNIVERSAL CONNECTION AND DEVELOPMENT 107

1. The 'Life Blood' of Marxism 107
2. The Principles of Materialist Dialectics 110
3. The Concept of a Law 112
4. Dialectics and Metaphysics 115

Chapter VI

CONTRADICTIONS AS THE SOURCE OF DEVELOPMENT 120

1. The Nucleus of Dialectics 121
2. The Unity and Struggle of Opposites 124
3. Internal and External Contradictions 128
4. Major and Minor, Basic and Non-Basic Contradictions . . 130
5. Types of Social Contradiction 132

Chapter VII

THE LAW OF THE TRANSITION OF QUANTITY INTO QUALITY AND VICE VERSA 136

1. The Concepts of Quality and Quantity 136
2. The Transition of Quantitative Changes into Qualitative Distinctions 140
3. The Leap and Its Forms 144
4. Revolution and Evolution 146

Chapter VIII

PROGRESS AND RECURRENCY IN DEVELOPMENT . . . 149

1. Circulation or Progress? 149
2. Negation as the Most Important Element of Dialectics . . 152
3. Concreteness of Negation 155
4. The Universal Law of Development 158
5. Dialectics and the 'Triad' 162

Chapter IX

SOCIETY: OBJECTIVE REGULARITY OF DEVELOPMENT AND PEOPLE'S ACTIONS 165

1. The Dialectics of Social Life 165
2. Social Action and Its Laws 168
3. Capitalism: the Dialectics of Antagonism 171
4. Objective Conditions and Subjective Factors of Social Development 173
5. The Law-Governed Nature of Socialist Revolution . . . 174
6. On the Role of Social Violence 179
7. The Dialectic of the Development of Socialism 183
8. Non-antagonistic Contradictions 188
9. Negation and Progress under Socialism 191

Chapter X

PRACTICE AND TRUTH 194

1. The Second Aspect of the Fundamental Question of Philosophy 194
2. The Determinant Role of Practice in Cognition 198
3. The Essence of Marxist Epistemology 202
4. What Is the Truth? 204
5. The Objective Truth 205
6. The Relative and Absolute in Truth 206
7. There Is No Abstract Truth, Truth Is Always Concrete 211
8. Practice Is the Criterion of Truth 212

Chapter XI

THE DIALECTIC OF THE PROCESS OF COGNITION . . 215

1. How the Truth Is Cognised 215
2. Sensory Knowledge 216
3. The Role of Abstractions 219
4. Forms of Logical Knowledge 220
5. Doubt, Belief and Intuition 224
6. Epistemological Causes of Idealism and Agnosticism . . . 226
7. Theory and Practice 228

Chapter XII

THE UNIVERSAL METHOD OF SCIENCE AND SOCIAL ACTION 230

1. Categories of Dialectical Thought 230
2. The Unity of Dialectics, the Theory of Knowledge and Logic 235
3. Dialectical Logic Versus Sophistry and Eclecticism . . . 238
4. Natural Philosophy and Positivism 244
5. Dialectical Materialism and the Special Sciences . . . 247
6. The Methodological Function of Materialist Dialectics 248
7. Guide to Action 252

Introduction

Men have always lived a life of hard work, strife and suffering, hope and misfortune, despair and expectations. No wonder that since time immemorial they have sought to know the meaning and purport of their existence. What is the essence of being? What are good and evil? What is the truth? Does man possess freedom of will? Where does happiness lie? Can violence and suffering be eliminated? What should society be like? What should man do? Is the world governed by law or accident? These and other questions have been a matter of grave concern for all generations of men. Today they present themselves in even sharper relief. After all, history has never developed so rapidly and contradictorily as it does in this day and age.

Science has made astounding progress. Man has delved into the secrets of the atom and is exploring outer space. Radical qualitative changes are taking place in technology. The current scientific and technical revolution has given a powerful impetus to rapid growth in the productive forces and at the same time has further exacerbated the contradictions of capitalist society and given rise to new social antagonisms. The deepening general crisis of capitalism involves a sharper confrontation between the forces of progress and reaction, war and peace.

The world revolutionary process is gaining momentum. In the modern age of radical social change the positions of existing socialism are strengthening and the socialist countries are exerting a growing influence on the course of world events. The working people are stepping up their struggle against monopoly oppression and the exploiting order. The imperialist colonial system has collapsed. The national liberation and anti-imperialist move-

ments are gaining in strength, smashing dictatorial regimes. Substantial progressive changes are taking place in the developing countries. A group of these countries is following the road of socialist orientation.

The essence of these complex processes and events and their major trends can only be interpreted correctly if one takes a scientific outlook on the world.

World outlook plays a paramount role in people's lives. It affects their orientation, political convictions and aesthetic ideals, their morality and behaviour in society, their attitude to religion, science and spiritual values, and guides their involvement in mass social action. The central, determining place among world outlook ideas is held by philosophy. As Rabindranath Tagore has aptly put it, philosophy is the guiding thread in man's life.

In modern society a special importance attaches to the mastery of the Marxist-Leninist scientific world outlook. Marxism-Leninism is a revolutionary teaching of the working class and all working people. It reflects the objective laws of the development of the world and the experience of the people's struggle against exploiters, against social and national oppression. It reveals the working class's historic role in the revolutionary transformation of society, in the struggle for, and in the building of, the most just social system—communism, the first phase of which is socialism.

Marx and Engels provided solid scientific grounds for the proletariat's great liberating role in the destinies of the whole of mankind. It is the working class that can, owing to its objective socio-economic position, head the political struggle of all the oppressed and exploited for their national and social emancipation and bring it to victory. The proletariat can only emancipate itself by abolishing the socio-economic conditions of human exploitation inherent in capitalism and by breaking the political dictatorship of the bourgeoisie.

The working class's world historical mission is to effect a transition from capitalism to socialism which is free from any social and national inequality, insures a radical improvement and continuous growth of the material and cultural standards of all sections of the population without exception, and opens up broad vistas for the all-round development of the personality that har-

moniously combines intellectual wealth, moral purity and physical perfection.

Marxism-Leninism, a theoretical expression of the fundamental interests and aims of the working class, represents an integral scientific system comprising three components, viz. political economy, scientific communism and philosophy.

Marxist political economy studies the laws governing the production and distribution of material benefits at different stages of the development of human society. It shows the economic necessity of a transition from capitalist society, which is based on private property and the exploitation of man by man, to socialism.

The theory of scientific communism studies the laws governing the class struggle and the socialist revolution, and the ways of building socialism and communism.

Marxist-Leninist philosophy forms a general theoretical foundation for a scientific world outlook. It provides an understanding of the general laws of nature and society and the logic of modern scientific thinking. It substantiates confidence in man's unlimited ability to cognise and change the world and elucidates the fundamental causes and major trends of social progress.

The strength of Marxism-Leninism lies in its being objectively true and in its continuous, creative development. This scientific theory serves as a dependable guideline in the revolutionary struggle waged by the working class and all working people against capitalist exploitation, and for social justice and equality. As any genuine science, the Marxist-Leninist teaching is by its nature integral and internationalist, its principal conclusions and laws being applicable to the realities of any country. It is sometimes said that Marxism-Leninism, being allegedly a product of purely Western culture, is alien to national traditions and development of the East in general, and India in particular. Such assertions are erroneous. Though there are substantial distinctions in the history and culture of different peoples, mankind is at the same time developing according to common, general laws. A conscious mastery of Marxist-Leninist theory helps understand the laws and develop a modern scientific world outlook.

The first step in its mastery is the study of Marxist-Leninist philosophy.

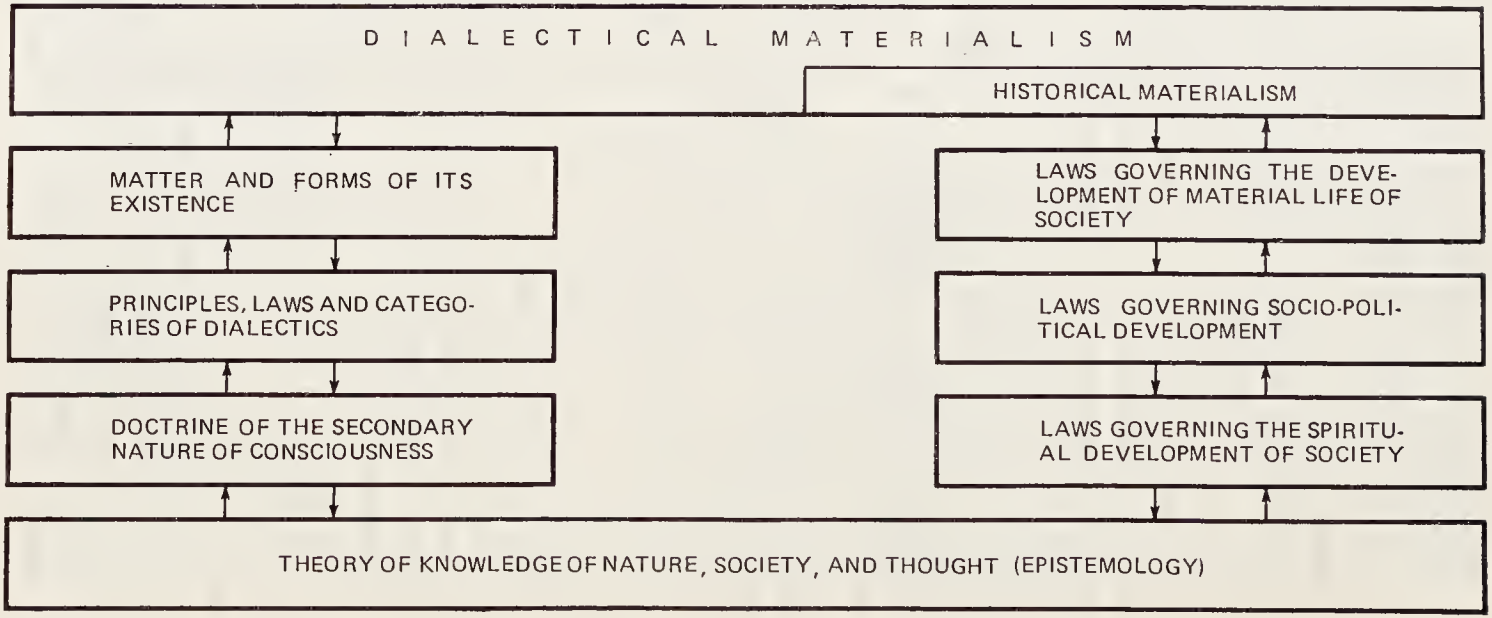
STRUCTURE OF MARXIST-LENINIST PHILOSOPHY

'Marx's philosophy is a consummate philosophical materialism which has provided mankind, and especially the working class, with powerful instruments of knowledge.'

Lenin

'Marx deepened and developed philosophical materialism to the full, and extended the cognition of nature to include... *society*. His *historical materialism* was a great achievement in scientific thinking.'

Lenin



This philosophy is a scientifically grounded system of world outlook ideas, an integral totality of ideas about the surrounding reality that includes, above all, a doctrine on the relation of matter and consciousness, the general laws governing the development of the world, on the truth and ways to cognise it, on the interrelationship and development of categories of scientific thinking, on space and time, the relation between theory and practice, and so on.

Apart from these fundamental questions, an exceedingly important place is held in Marxist-Leninist philosophy by the teaching on development features of human society, the relation of social being and social consciousness, the laws governing the change of socio-economic formations, the doctrine of classes and nations, the role of the popular masses in history, of the class struggle and social revolution, the relation between the individual and society, etc.

For convenience, textbooks on Marxist-Leninist philosophy usually term its teaching on the general issues of world outlook 'dialectical materialism' and its teaching on the general laws and motive forces of social progress 'historical materialism'. However, this division can only be justified on methodological grounds and should not be overstated. Dialectical materialism and historical materialism form a single philosophical doctrine and cannot be opposed to each other.

The present study of Marxist-Leninist philosophy shows an inseparable unity of dialectical and historical materialism and concentrates on the most general problems of scientific world outlook, which are closely linked with the principles, laws and categories of dialectical materialism as expounded in the first chapter.

Chapter I

PHILOSOPHY: THE THEORETICAL BASIS OF MAN'S WORLD OUTLOOK

1. What Is Philosophy?

As the philosophy of the working class, Marxist-Leninist philosophy is the supreme form of materialism, a logical result of the preceding development of philosophical thought through the ages, and of the whole spiritual culture of mankind. That is why it is proper to begin the study of the fundamentals of dialectical materialism with ascertaining what philosophy is in general, as a specific field of man's spiritual activity. This is all the more important because philosophers themselves are far from unanimous on this point. Some of them (notably those in India) prefer to class philosophy among the arts rather than among the sciences. To support their view they maintain that there is no integral philosophical system and that a philosopher creates his system as subjectively as a composer his music. Others side with the prominent British philosopher Bertrand Russell who believed that philosophy occupied an intermediate position between science and religion (theology), and that 'all *definite* knowledge—so I should contend—belongs to science; all *dogma* as to what surpasses definite knowledge belongs to theology. But between theology and science there is a No Man's Land, exposed to attack from both sides; this No Man's Land is philosophy.'[1] Still others interpret philosophy as the supreme science (the science of sciences), a doctrine of ethics and happiness, of scientific and ordinary language, doctrines of man, of knowledge, of the beautiful, etc. We shall not go into further detail about these theories. As philosophy developed its subject-matter was changing and becoming more precise. The

[1] Bertrand Russell, *A History of Western Philosophy,* Simon and Schuster, N. Y., 1945, p. XIII.

above interpretations are one-sided or even erroneous in the context of a modern scientific conception of philosophy.

For instance, philosophy differs from art. The latter serves to satisfy people's aesthetic requirements and reflects reality in artistic images, while the former has always purported to satisfy man's requirements in explaining the world, which is done through abstract notions, categories and laws.

It would be wrong to identify philosophy with religion. Religion is a fantastic reflection of natural and social reality, of those external forces that dominate men in their everyday life. In religious consciousness the world and being are interpreted through a belief in supernatural entities. Religion is therefore opposed to science as a system of objective, true knowledge. Unlike religion, philosophy operates with theoretical abstractions rather than illusory images. It does not rely on postulated dogmas, but tries to explain being on the basis of a knowledge of reality. It has therefore claimed, as a rule, to be scientific, and to apply scientific methods.

There are however essential differences between philosophy and the sciences. The special sciences study the properties of separate things and the particular laws of the inorganic world, nature or history. Philosophy, on the other hand, is concerned with a general picture of being, with a conception of the world as a whole, in its multiformity and unity, as well as with the place held in this world by man, his mind and activity. A scientist wants to reveal the objective truth, while a philosopher does not only strive to explain reality, but also to interpret it from the position of a definite class.

Many people believe that the essence of philosophy lies in its moral function. Of course, philosophy has much in common with morality. Any philosophy in its conception of the world directs man towards a definite type of conduct in society; theoretically substantiates particular ethical ideals, codes and norms of moral relations between people, as well as their moral actions. But one should still draw a distinction between morality and philosophy. The former expresses the specific sphere of man's relations with his fellow beings and society, while the latter is concerned not only with moral action, but also with politics, religion, economics, science and art. Moreover, morality is only a sphere of hu-

man relations proper, of social phenomena, while philosophy also claims to explain universal phenomena and processes of nature. Another essential difference is that morality interprets man's behaviour from the angle of good and evil, justice, duty and conscience; while philosophy judges reality in terms of law, necessity, matter, spirit, development, essence, etc.

Thus, we can see that philosophy is a specific spiritual, intellectual or, as is sometimes said, a special form of social consciousness. Its main distinctive feature is that it forms the theoretical foundation for man's world outlook. World outlook is a distinct system of man's generalised views and notions of reality, of natural and social phenomena, and of his own relation to the surrounding world. The concepts of world outlook and philosophy are often identified together, though it is more correct to differentiate between them. After all, world outlook is shaped by different elements that are far from homogeneous. For instance, general notions about different aspects of the objective world are provided by the sciences of nature and society. Certain world outlook elements are also contained in literature and art, ethics and law. Each of them reflects essential aspects of natural and social reality in its own way. Religion produces perverted notions about the world, whereas philosophy forms the ideological and theoretical nucleus of all the elements of world outlook by creating a general conception of the world in its past, present and future.

World outlook is, in its content, a complex totality of ideas. Its nature, content and structure have changed with the development of society. Different types of world outlook have been predominant at different stages of history, in different societies and classes. In primitive society world outlook derived from empirical knowledge acquired in everyday life and was closely interwoven with mythological notions. These were a distorted, fantastic reflection of reality; an expression of man's impotence in the face of the elements. The Vedas, for instance, written at a time when the clan system was disintegrating in India, expound the views of people of the ancient world on nature, fate and relationships between people. Yet this world outlook was essentially mythological and religious; philosophy proper had not yet come into being.

In our day, too, hundreds of millions of people in the industrialised capitalist countries hold unphilosophical if not purely mythological views of the world, ranging from the empirical and spontaneous to the religious.

The inception of the first philosophical systems gave rise to a qualitatively new type of world outlook—philosophical world outlook. Philosophy is a theoretically substantiated teaching on the world as a whole. It unites the general notions of nature, society and man into an integral doctrine.

Philosophy differs from spontaneous world outlook in being a consistently developed system of ideas about the essence of the world and its cognition by man, rather than a mere totality of views formed by men in their everyday life.

Philosophical world outlook differs from religious world outlook because it does not merely proclaim and inculcate certain principles, but logically deduces and proves them. Not every philosophy is scientific. To be scientific, a philosophy must be based on people's generalised life experience and on the scientific knowledge they have attained, rather than on purely arbitrary, subjective reasoning.

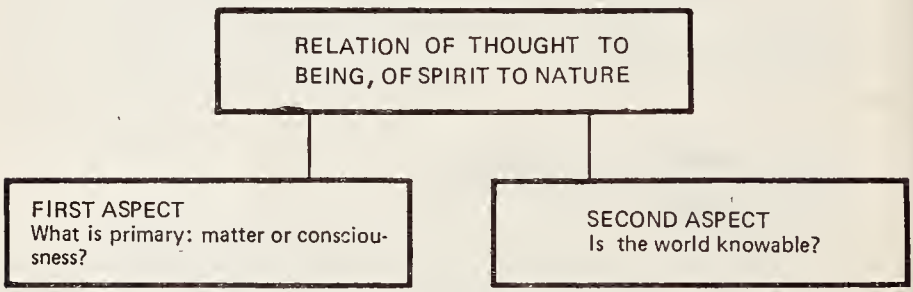
In its content, philosophical world outlook can therefore be scientific or unscientific. In its basic ideas it can also be described as religious or atheistic, pessimistic or optimistic, misanthropic or humanistic, progressive or reactionary. This ultimately depends on how it answers the fundamental question of philosophy.

2. The Fundamental Question of Philosophy

Among the most general questions of any philosophy are those concerning the origin and essence of the world, the origin and essence of man and his consciousness, and the meaning of man's life. It is these questions that philosophers have always sought to answer. No wonder the very word 'philosophy', first coined by the Greek thinker Pythagoras, according to legend, means 'love for wisdom'. The Indian word *darshana,* which is most frequently used to denote the concept of philosophy, is derived from the root *drish* (to see) and hence also expresses the most general character of world outlook—delving into the essence of the world and the purport of being.

Explanation of all philosophical questions ultimately involves a conception of man's relation to the outside world, of his consciousness to objective reality. It is this question that is fundamental to philosophy. Thousands of years ago people had no idea of the structure of their bodies and could not, in particular, explain dreams. Even then the notion could arise that human thought and sensations resulted from the activity, not of their bodies, but of some specific soul that lived in the body and left it after death. Even at that time people must have thought of this soul's relation to the outside world. Philosophy is precisely such a theoretically systematised outlook on the world, based on a defined conception of the relation between matter and spirit. What is primary, thought or being? This is the most general formulation of the fundamental question of philosophy. It can also be formulated somewhat more narrowly and at the same time more sharply as follows: Was the world created by God or has it always existed? At the same time the question of the relation between being and thought has another aspect, viz., how our ideas of the surrounding world relate to that world or, in other words, 'Is the world knowable or not?'

FUNDAMENTAL QUESTION OF PHILOSOPHY



One particular solution to the fundamental question of philosophy predetermines the character of man's outlook, his conception of the meaning of his existence, his relation to social phenomena, and the goal of his actions. The old Indian political treatise *Arthasãstra* maintains that philosophy is useful because 'it strengthens the spirit in hardship and happiness and gives you an ability to reason, speak and act'.[1] But doctrines that provide

[1] *Antologiya mirovoi filosofii* (Anthology of World Philosophy), Vol. I, Part I, Mysl Publishers, Moscow, 1969, p. 138.

a different answer to the fundamental question of philosophy formulate man's position in life in a different way. Those who assume that everything is motivated by the spirit naturally call for the elimination of evil and suffering in the world exclusively through moral perfection and the observance of the eternal moral law of *karma*. Such a philosophy allows the individual to see the meaning of his existence only in self-knowledge and in the attaining of the *moksha* state, in the denial of social action.

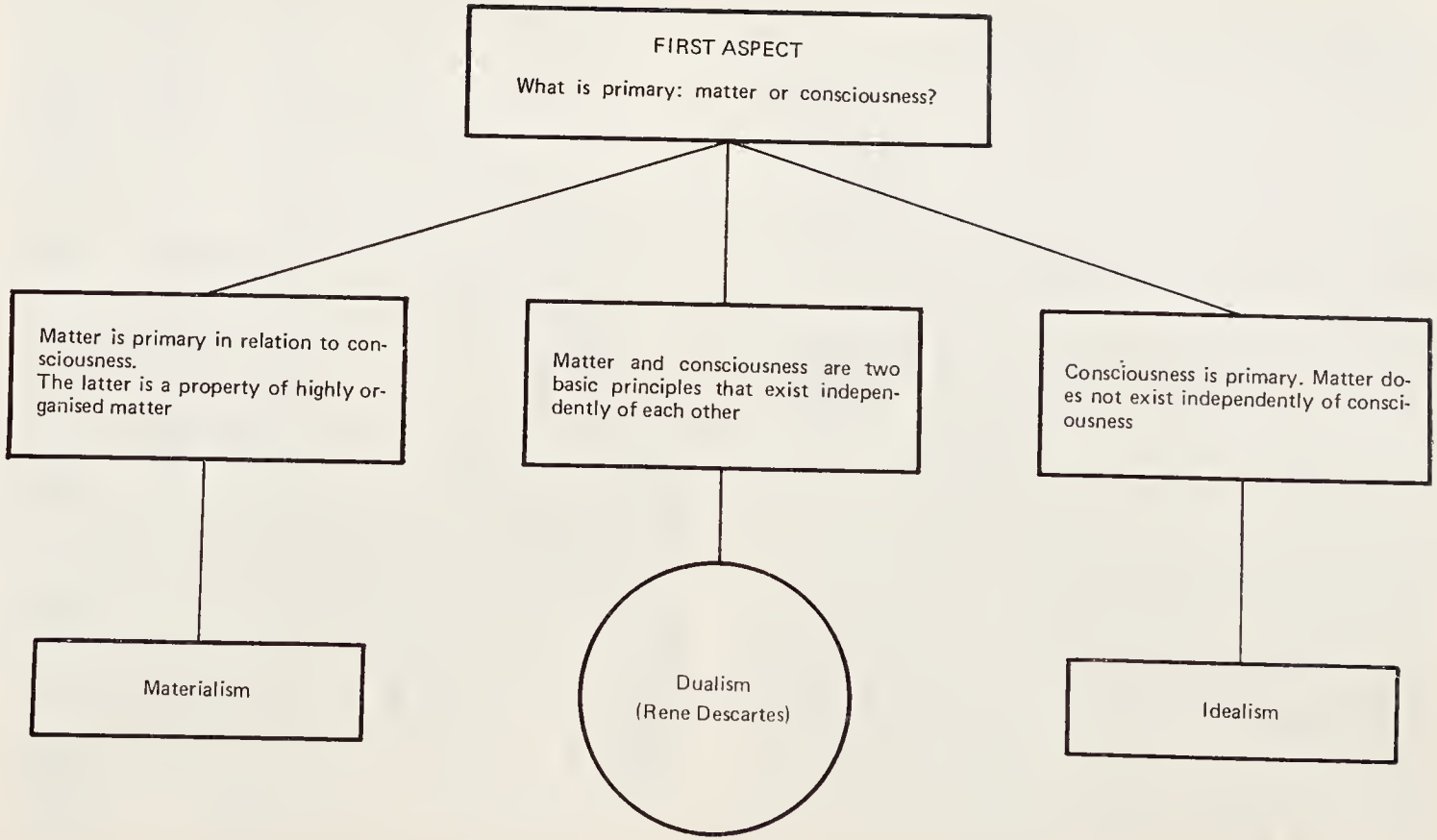
Conversely, recognition of the primacy of being and the possibility of discovering the laws that govern its change, require that people know the real social causes of inequality and oppression and wage a decisive struggle to establish new social relations. In this case man finds that the real meaning of his existence lies in collective action against social evil and in the establishment and realisation of progressive social ideals.

Even this example demonstrates that analysis of the essence of the fundamental question of philosophy makes it possible to reveal its partisanship, its connection with the class struggle in society.

3. Partisanship of Philosophy: Materialism and Idealism

Philosophers are divided into two big camps, those of materialism and idealism, depending on how they answer the first part of the question on the relation between thought and being. Materialists assume that nature and matter are primary and consciousness secondary, i.e., is a derivative and property of matter. By contrast, idealists hold that the spirit existed prior to nature and that it is by the spirit that the world was created. The basic postulates of materialism, based on natural science, imply the rejection of belief in God and are inseparable from atheism; while idealism is in essence closely connected with religion and aims theoretically to justify and substantiate it.

In this day and age it is especially important to see the genuine meaning of a particular philosophical doctrine determined by its answer to the fundamental question of philosophy. Modern idealism, for instance, disguises itself, as a rule, behind such scholarly terms as 'existentialism', 'personalism', 'neopositivism',


FIRST ASPECT
What is primary: matter or consciousness?
Matter is primary in relation to consciousness.
The latter is a property of highly organised matter
Matter and consciousness are two basic principles that exist independently of each other
Consciousness is primary. Matter does not exist independently of consciousness
Materialism
Dualism
(Rene Descartes)
Idealism

'pluralism', and so on. Some bourgeois philosophers allege that in the modern age the fundamental question of philosophy has become outdated and the difference between materialism and idealism has disappeared. Is that so? After all, philosophy as a substantial element of social consciousness has always reflected the social being. The interests of the progressive and reactionary forces, of the exploited and exploiting classes are opposite in societies marked by antagonistic social relations. The clash of opposite class interests has been reflected in the struggle of philosophical ideas through different periods of history. The history of society shows that materialist philosophy was largely developed by representatives of progressive classes and social groups. It expressed the world outlook and ideology of the rising, progressive social strata, concerned with changing social relations and developing the productive forces, with disseminating scientific knowledge and overcoming ignorance and superstition. Idealism in philosophy was more often than not an ideology of the reactionary classes and social groups seeking to preserve the existing social order and intensify religious prejudices. In modern society the confrontation between materialism and idealism ultimately expresses the opposition of interests of the two main classes in struggle—the bourgeoisie and the working class.

Needless to say, the connection between the materialism/idealism struggle and the class struggle should not be oversimplified. It is not at all true to say that materialism and idealism have always assumed a 'pure form'. Many philosophers combined materialist views of nature with idealist notions about social phenomena. There were also dualist systems that tried to unite opposite outlooks on the world by assuming the independent existence of two principles or substances, the spiritual and the material. The so-called pluralism preached by many bourgeois scholars today also indulges in an unjustifiable combination of incompatible views. Its adherents assume that the universe is based on several (more than two) independent principles or substances. In fact they remove any difference between materialism and idealism, science and religion, reason and myth, truth and falsehood. In the final analysis pluralism, just like dualism, in philosophy is a doctrine of a purely idealistic tenor.

Scientific materialist philosophy is a monistic doctrine, that is

BASIC STAGES IN THE DEVELOPMENT OF MATERIALIST PHILOSOPHY

PERIOD	THEORY	PROPONENTS	SOCIAL GROUPS WHOSE INTERESTS IT EXPRESSES
6th-3rd centuries B.C.	Spontaneous, naive dialectical materialism	Phales, Democritus, Heraclitus, Epicurus, Lucretius Carus, and others	Democratic section of slave society
17th-18th centuries	Metaphysical materialism	Bacon, Locke, Spinoza, Holbach, Diderot, and others	Nascent bourgeoisie
19th century	Materialism of the revolutionary democrats	Belinsky, Herzen, Chernyshevsky, Dobrolyubov, and others	Revolutionary peasantry
19th-20th centuries	Dialectical and historical materialism	Marx, Engels, Lenin, and their followers today	Working class

to say, it adheres to the principle of the primacy of matter in its conception of the world. One can only pursue the idealist principle of the primacy of consciousness with any consistency, if one ignores the contradictions arising therefrom between a philosophical doctrine and life itself.

For all the opposition between materialism and idealism it would of course be wrong to believe that any thesis propounded by a particular philosopher is directly conditioned by his class interest and political views. Nevertheless, a dividing line is clearly traceable between opposing parties in philosophy, as we shall try to show in several examples taken from the history of human culture. The struggle between materialism and idealism is ultimately an expression of the trends and ideologies of hostile classes and social forces.

It would be appropriate here to point out the utter fallacy of assertions that Western and Eastern civilisations are in principle different. This tendency is evident even in poetry. Thus, Rudyard Kipling wrote:

Oh, East is East, and West is West, and never the twain shall meet,
Till Earth and Sky stand presently at God's great Judgment Seat. . . .[1]

Bourgeois and especially Western scholars incorrectly contrast the various 'human spirit development models' that allegedly determine the radical distinctions between Eastern and Western philosophies. The former, they say, is marked predominantly by mysticism, by an emphasis on creative intuition, the preaching of passivity and the trend towards communion with nature, while the latter, on the contrary, is rationalist, active, given to critical reasoning and strives to transform nature.

Referring to the history of Indian philosophy, modern bourgeois scholars maintain that it is permeated by a belief in a Divine Being, proclaims that man's salvation lies in his withdrawal into an inner world, relies on the subconsciousness rather than the intellect, and so on. From this a number of Western and Indian scholars have inferred that there was no struggle between

[1] *Selected Prose and Poetry of Rudyard Kipling,* Garden City Publ. Co., N. Y., 1937, p. 1.

materialism and idealism in the history of Indian philosophy, in contrast to that of the West. They hold that Indian philosophy has always been spiritualistic or mystical in all its forms, i.e., was idealistic. At the 16th World Congress of Philosophy held in Düsseldorf (West Germany) in 1978, some Indian philosophers argued that the rationalist idea, i.e., a purely scientific way of thinking based on logical proof, is incompatible with the very essence of Eastern philosophy. According to them, this idea belongs entirely to West European culture directed towards logical (rational) knowledge rather than contemplation, towards the opposition of thought and being rather than their integration, towards change rather than the conservation of age-old customs and traditions. The Indian philosopher R. Pannikara, for example, said that modern civilisation, the foundations of which are closely connected with science, is not the only possible way to develop culturally. He opposed Western rationality to Eastern rationality, asserting that the former is based on differentiation of subject and object and on mediated knowledge while the latter relies on direct knowledge leading to human emancipation.

This opposition of East and West as allegedly quite alien civilisations completely distorts the actual process of mankind's spiritual development. The history of Indian philosophy is interpreted from this point of view as a pure unfolding of ideas in the spiritual sphere totally unconnected with the development of socio-economic formations and the class struggle in society. Those who support this opposition incorrectly ascribe to all Indian philosophers the tendency to cognise all phenomena from the religious angle. The various schools and trends in Indian philosophy are differentiated on the basis of their relation to the Vedas (i.e. philosophy is 'orthodox' if it recognises the importance of the Vedas and 'unorthodox' if it does not) rather than on the basis of their answers to the fundamental question of philosophy. Needless to say such an approach tends to tone down the struggle between materialism and idealism, between historically progressive and reactionary trends. Some even maintain that materialism has no roots in ancient India.

However, materialism is not accidental or inessential, in the spiritual respect, to the history of philosophy in India or other countries, but is an inalienable and important component of their

cultural traditions. 'There can be no doubt, however, that the materialist philosophy was professed in India for centuries and had, at the time, a powerful influence on the people.'[1]

With regard to this it should be noted that it would be altogether wrong to counterpose Western nations with their rational, logical thinking, to Eastern nations with their allegedly irrational and mystical perception of the world. It is erroneous, for instance, to assert that 'rational' Western thought produced exact sciences which were unknown to the Eastern nations. Mathematics was highly developed in India. The famous theorem named after Pythagoras was discovered in India long before it became known to the Greeks. The great scientist Aryabhata (5th century A.D.) calculated the number π to within the fourth figure. He also knew how to find out square and cube roots and to solve first degree equations. Indian scientists devised the decimal calculus system, laid the foundations for trigonometry, formulated the concept of zero, and made a great contribution to chemistry and physics.

On the other hand, Western philosophers, like their Indian counterparts, were interested in man's inner world, as can be seen, for example, in the Greek philosophers' famous motto, 'know thyself'.

Thus, counterposing East and West is wrong both in philosophy and, more generally, in spiritual culture. During his visit to India (December 1980) L. I. Brezhnev stressed the importance of cultural cooperation between the Soviet and Indian peoples, the peoples 'of two great world cultures that have produced brilliant thinkers, writers, artists and scientists'.

All nations follow similar paths in their cultural development, which can ultimately be explained by the common regularities of material production. Indian philosophers concerned themselves with the very questions studied by their Western counterparts. This is not to say, of course, that philosophical doctrines are identical in different cultures. Their content is influenced by the features of a country's history, culture, traditions, etc. Nonetheless, the general laws governing the evolution of different philosophical doctrines must be taken into account.

[1] Jawaharlal Nehru, *The Discovery of India,* Asia Publishing House, Bombay, 1964, p. 100.

4. Historical Forms of Materialism

Philosophy arose as a special form of social consciousness at the time when primitive-communal societies were disintegrating and class society was beginning to emerge. There was a difference, even at that time, between the materialist and idealist views on the world. Both have travelled a long way in their development and have taken many forms.

The first philosophical doctrines took shape more than two and a half millennia ago in ancient Egypt, Babylonia, India, China, Greece and Rome dominated by the slave system. In these conditions the development of materialist world outlook was promoted by the struggle of the slave society's progressive forces for the development of crafts and trade, and the growth of scientific knowledge and culture. Materialism helped them fight the political and economic sway of the slave-owning nobility that sought to keep society at a standstill and preserve the predominant religious, mythological views. The materialist philosophy of slave society was the first historical form of materialism.

It was in essence a spontaneous and naive materialism. According to the Chārvakās in India (6th century B.C.), everything in the world consisted of four elements—fire, air, water and earth; even living creatures were made up of these elements, man being no exception. Consciousness, a property of human beings alone, emerged from the combination of these four elements in the human body, and disappeared with the body's death. The Chārvākas saw no sense in the religious teaching on the reincarnation of souls (samsara) and denied the existence of God. They were uncompromising towards religion and the prevalent idealistic doctrines, and were consequently hated by the priests and advocates of orthodox religion who destroyed the bulk of their writings.

The ancient philosophers' naive materialism was usually combined with spontaneous dialectical views on the world. One should note in this context that the opposition of materialism and idealism has always been matched by the struggle between dialectics and metaphysics for a correct conception of the world.

Dialectics assumes that nature's objects and phenomena are interconnected and undergo qualitative changes which result

from their inherent contradictions. The latter are the source for the development of all phenomena of reality.

Inherent in metaphysics is an opposite view on the world. Metaphysics sees the world as something immutable, remaining in the same state. Moreover, it denies any connection among things or any internal contradictoriness of natural phenomena, as well as any development of the world, or conceives of it in an extremely narrow-minded way.

In the history of philosophy materialists and idealists have held either dialectical or metaphysical views or a combination of both. One must therefore take a concrete historical approach to the characterisation of these two trends, of which more later.

The ancient philosophers' naive materialism, as we have noted above, was spontaneously dialectical. This means that they saw the world as it seemed in man's direct living contemplation, and sought to conceive of nature as a moving and developing whole that constantly alters the forms in which it manifests itself. The outstanding Greek philosopher Heraclitus (c. 530-470 B.C.) based everything that exists on the material element—fire, and explained the overall rotation of natural phenomena by changes in fire. He taught that the world was one but also the many, was not created by gods or man, but always was and always will be eternally living fire, regularly being ignited and regularly being extinguished. Everything flows, everything changes, he said, there is nothing immovable. According to him, a transition from one state to another takes place through the struggle of opposites and according to necessity.

A spontaneously dialectical view of the world was also held by another outstanding Greek philosopher, Democritus (c. 460-370 B.C.). He taught that the world was a single whole consisting of an innumerable multitude of atoms, i.e., tiny, invisible and indivisible particles moving in the void. According to him, all changes were reduced to various combinations of joining and disjoining atoms moving in the void according to natural necessity. He held that the movement of atoms was eternal, without beginning or end.

Thus, the first historical form of materialist philosophy was naive and spontaneous, though it was marked by a dialectical view of nature.

The slave system was replaced by feudalism, during which a religious idealistic outlook was predominant for several centuries. Philosophy became the handmaiden of theology. But the materialist tradition did not die. Thus, the outstanding Central Asian philosopher Ibn Sina (c. 980-1037) denied that the world had been created by God. He believed that the world, like God, was eternal. The Arabian thinker Ibn Rushd (1126-1198) also rejected the religious doctrine that the world had been created 'out of nothing'. He championed the separation of knowledge from faith, and science from religion.

All these were, however, only elements of a materialist outlook. The emergence of a new historical form of materialist philosophy was brought about on a social plane by the transition from feudalism to capitalism.

While the capitalist mode of production was establishing itself in Western Europe in the 17th and 18th centuries, materialism assumed a more advanced form than had the naive spontaneous views of the ancient philosophers. Materialism was the world outlook held by progressive sections of the bourgeoisie concerned about the development of the productive forces and the elimination of outdated feudal relations, and about the abolition of the Church's spiritual dictation established in the Middle Ages. With the development of industry and technology, the capitalist class needed scientific knowledge and therefore supported experimental natural science. Slave and feudal societies had not in fact known any clear distinction between philosophy and specialist knowledge, whereas now the previously single subject of science was clearly dividing into separate sciences such as mechanics, astronomy, physics, chemistry, biology, and others. However, they were still weakly developed and were more engaged in the collection and generalisation of facts, the study of various objects and phenomena and their classification and analysis, than in the establishment of connections among them and the study of changes in the world. Mechanics was the most developed science at the time, while many regularities in nature (particularly chemical and biological ones) had not been studied and remained unknown. All this left its imprint on the philosophy and scientific thought of the period. The materialism of that time is exemplified in the doctrine of one of its prominent pro-

ponents, the English philosopher Thomas Hobbes (1588-1679).

Hobbes waged an uncompromising struggle against idealism, theology and scholastics and rejected the idea of God and the immortality of the soul. He conceived of the world as a single material substance. Matter was eternal and the separate bodies comprising it were temporary: they came into being and passed away. He treated matter as something qualitatively homogeneous. Material bodies were characterised only by their properties of extension, weight, volume, form and other quantitative magnitudes. Movement was a property of matter. But Hobbes recognised movement only in one form, that of the simple mechanical displacement of bodies in space. He likened man (as well as all natural bodies) to a mechanism, comparing the heart to a spring, the nerves to threads, the joints to wheels, etc. In his view the state was man's creation that arose from an agreement made by men to rationally restrict their natural rights in order to achieve universal peace. The state was the same mechanism as a separate individual, its soul being the supreme power, the joints the judiciary and executive organs, the nerves rewards and punishments, etc. The material world, he held, was knowable. The truth could be obtained through the intellect, by logical reasoning, i.e., methods of rational thinking. But he reduced rational thinking to simple mathematical operations, in the belief that the study of all natural and social phenomena involved subtraction and addition.

Not all the 17th- and 18th-century materialist philosophers, of course, shared Hobbes' views. Some of them emphasised the role of sensuous experience, perception and the empirical method in the cognition of reality (Bacon and Locke in England, Lomonosov in Russia, and others). Some philosophers, such as Spinoza in Holland and Diderot in France, had dialectical elements in their views. On the whole, however, the materialism of those times was historically limited and inconsistent. In the case of Hobbes it was a mechanistic materialism, since it considered it possible to apply the sole yardstick of mechanics to chemical, organic and even social phenomena. Secondly, it was a metaphysical materialism whereby the world was seen as a sum total of disconnected things at the foundation of which lay an immutable substance that did not undergo any genuine historical development. Such again was the doctrine of Hobbes who saw only

quantitative distinctions between things and denied their qualitative changes, since he interpreted movement exclusively as a simple displacement of bodies in space. Finally, it was only in relation to nature that the 17th- and 18th-century materialists gave the correct answer to the fundamental question of philosophy; they remained idealists in their conceptions of society and history. All changes in society were explained by the action of spiritual factors, such as political or religious views, the will of individual outstanding personalities, the dissemination of knowledge, etc. But the materialists of this time were unable to explain the reasons for changes in people's opinions and views, and the role of objective economic conditions in their life. This can again be illustrated by the doctrine of Hobbes, who explained the emergence of the state, a major social institution, in purely idealistic terms as people's rational agreement about the organisation of society, rather than by materialist reasons (the emergence of private property and human exploitation, the class struggle, etc.).

But still, the materialism of ascendant capitalism was a new stage in the evolution of philosophical knowledge. It was not the spontaneous materialism of the ancient world. Though metaphysical, it relied on a solid base of natural sciences and provided them with a philosophically substantiated method of investigation.

Many of metaphysical materialism's limitations were overcome by the 19th-century Russian revolutionary democrats Belinsky, Herzen, Chernyshevsky, Dobrolyubov and others, whose views constitute the third major form of materialism in the history of philosophy. Their ideas reflected, on a social plane, the struggle waged by Russian peasants and all progressives against autocracy and serfdom. They rejected idealism and religious mysticism and, relying on natural science, propounded the qualitative multiformity and perpetual development of the material world. They conceived of development as a dialectical process involving a struggle of opposites and negation. In this they differed essentially from those who held metaphysical doctrines. The revolutionary democrats also expressed some materialist ideas on society, but on the whole their views of society and its development were idealist, because they were unable to reveal the material causes of society's development and to provide a scientific subs-

tantiation for the ways to build a social system free from exploitation.

We have thus briefly characterised the main historical forms of pre-Marxian materialism. Throughout its long development it was resisted by idealist philosophy. The philosophical conception of reality evolved in the struggle between these two main trends.

5. Forms of Idealism

Idealism, which gives an opposite answer to the fundamental question of philosophy to that of materialism, has many forms, the main ones being objective idealism and subjective idealism. These assume the primacy of consciousness to matter, and differ merely in their respective conceptions of consciousness and thinking. This can be best understood with evidence from the history of philosophy.

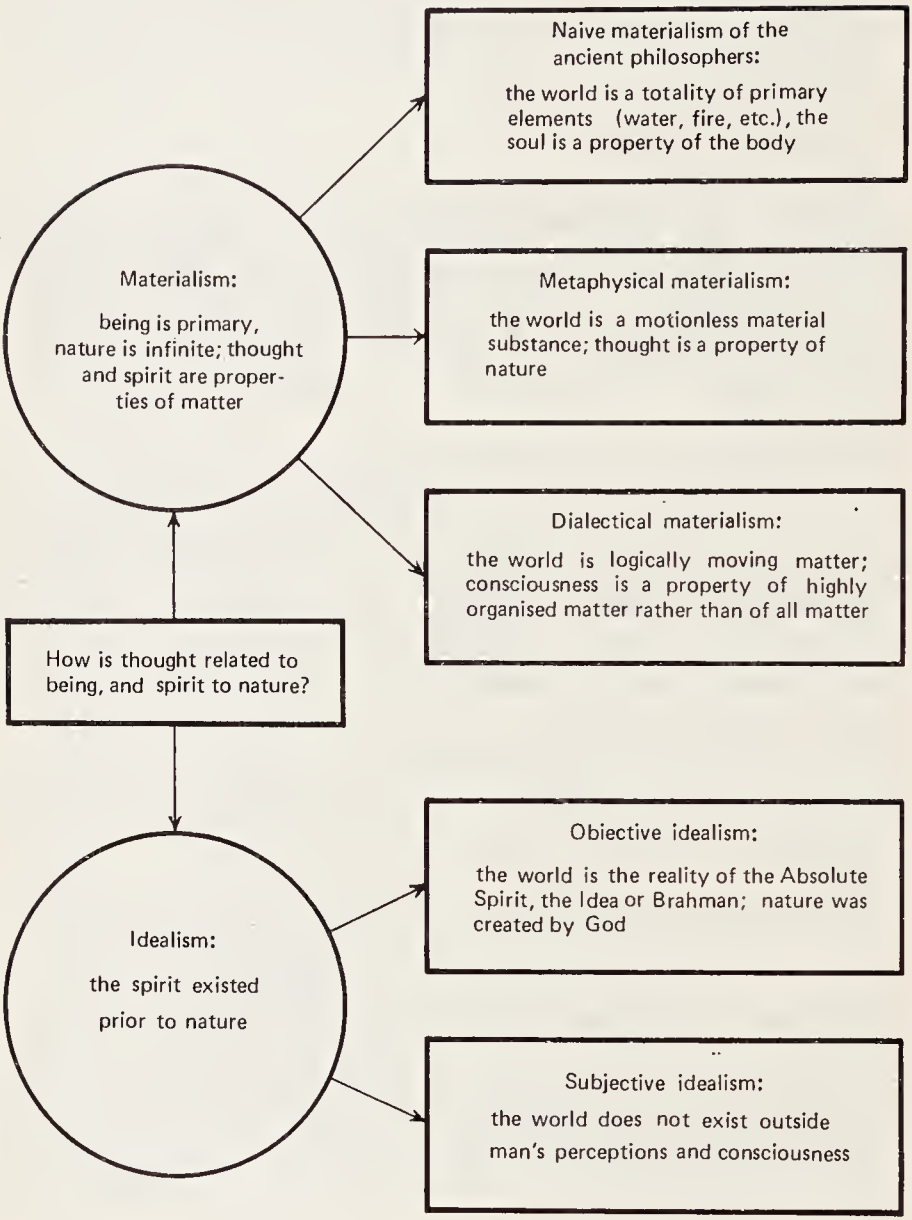
In ancient Greece a steadfast opponent of materialism was Plato (c. 427-347 B.C.), an ideologist of the slave-owning aristocracy who created one of the first systems of objective idealism. Arguing against the materialist Democritus, Plato defended the primacy of eternal, immutable and independently existing ideas, 'spiritual essences'. The world of sensuous things, he said, was secondary and dependent on the supernatural spiritual world of ideas, which was a genuine existence. Ideas lived in the 'heaven which is above the heavens'. 'There abides the very being with which true knowledge is concerned: the colourless, formless, intangible essence, visible only to mind, the pilot of the soul.'[1]

Plato believed that matter was non-being. That is why sensuous things which he construed as a mere reflection of ideas and elements of non-being—matter—were changeable and transient against the only genuine, immutable and eternal being of supernatural spiritual essences. Plato declared the world of ideas a divine kingdom of good and beauty, of absolute truth. This is the abode of man's soul prior to his birth, which disentangles from the material body after his death and departs to the supernatural world.

---

[1] *The Works of Plato,* Ed. by Irwin Edman, Carlton House, N. Y., 1928, p. 288.

FUNDAMENTAL QUESTION OF PHILOSOPHY



Plato's philosophical views have much in common with the earlier objective idealist doctrines of ancient India. Thus, the Vedānta philosophy, which provided a theoretical justification for Brahmanism, proclaimed the impersonal world spirit, Brahman, to be the primary reality and the only essence. It viewed the world of natural things only as something produced by this spirit, as mere reverie or 'Brahman's dreams'. Māyā, i.e., the world of natural phenomena, was merely an illusion, superficiality, 'waves, bubbles and foam' concealing the absolute being, Brahman, from man. Man's body was seen as an outward shell for the immortal soul (Ātman), which was a particle or incarnation of Brahman.

'That immortal Brahman is before, that Brahman is behind, that Brahman is right and left. It has gone forth below and above; Brahman alone is all this, it is the best.'[1] 'There is no other material of manifestation except Brahman,' wrote the Indian philosopher Shankara (788-820 A.D.), who founded the Ādvaita-Vedānta philosophy. 'All that is manifested is therefore Brahman and nothing else.... All creatures have been born of Brahman, divine Ātman. They are all therefore Brahman; this should be understood.'[2]

Most important in the Vedānta, as in Plato's doctrine, was the spiritual principle that existed outside and independent of man's consciousness, matter and nature, or prior to it. In the final analysis, objective idealism is an expression of a religious world outlook in philosophical terms and concepts. It is in fundamental opposition to science and mankind's socio-historical experience. Needless to say, progressive materialist philosophers, relying on scientific knowledge, have resolutely refuted idealistic assertions about the supernatural, spiritual foundations of the world.

Subjective idealists, however, assume man's, subject's, consciousness rather than an impersonal spirit to be primary. In the 18th century, for instance, materialism was criticised by the English philosopher George Berkeley (1685-1753). He maintained that only those things present in the individual's sensuous experience

---

[1] 'The Upanishads', Part II, Delhi, Motilal Banarsidass, 1965, p. 37.
[2] Shankara, Direct Apprehension, *Voprosy filosofii,* No 5, 1972, p. 11.

and consciousness could be considered to exist. According to him, to exist is to be perceived (*esse est percipi*). Accordingly, he treated things as mere combinations of man's sensations and consequently denied that things could exist independently of man's consciousness. Subjective idealists teach that there are no laws or causal links among things and phenomena outside man's mind, since these phenomena are themselves products of man's perceptions. To follow this point of view to its logical conclusion leads to obvious absurdities. Thus, if all objects are the subject's sensations it follows that no other people, including his own parents, exist outside his perceptions. Berkeley saw this and therefore tried to prove the existence of a spiritual substance, God, patently contravening the logic of his philosophy and denying its basic principle. He declared that all things were created by God at the moment when He ordained that they be accessible to man's perception according to laws established by Him. Berkeley's philosophy was thus, in fact, inconsistent, in that he changed over to the position of Plato's objective idealism. Subjective idealism is not only untenable because it is entangled in logical contradictions. It is refuted by life itself, by human practice. It is people's participation in material production and scientific achievements that show beyond all doubt that the world exists independently of man's consciousness. It was only natural therefore that 17th- and 18th-century materialist philosophers should discard Berkeley's philosophy which was at variance with science and people's life experience.

The above examples give us a general idea of the main forms of old materialism and the principal varieties of idealism. Now we shall consider the fundamentally new features of the philosophy of dialectical and historical materialism.

Chapter II

THE ESTABLISHMENT OF A SCIENTIFIC PHILOSOPHY

1. The Social Necessity for a New Type of Philosophical Outlook on the World

Dialectical and historical materialism was founded by Karl Marx (1818-1883) and Friedrich Engels (1820-1895) and further developed by Vladimir Ilyich Lenin (1870-1924) in new historical conditions.

The emergence of dialectical and historical materialism in the mid-1840s was historically inevitable, because at this time a social necessity and the objective preconditions for a genuinely scientific outlook on the world had developed. Dialectical and historical materialism, like Marxism as a whole, was brought into being above all by socio-economic factors: by the development of capitalism and its contradictions, by the growth and intensification of the struggle between labour and capital, and between the proletariat and the bourgeoisie. With the establishment of the capitalist mode of production, the working class was beginning to take shape. It was developing political awareness and organisational capacity in the class struggle against capitalist exploitation, in the massive movement against social oppression, in strikes and revolutionary action. The working class was becoming an independent political force in history, its social existence reflected in its world outlook. The young class needed a clear understanding of the laws of social development, a scientific substantiation of its aims in the struggle for social emancipation, against capitalist oppression. The Marxist philosophy was precisely this scientific expression of the revolutionary proletariat's world outlook. Dialectical materialism could not have arisen in the preceding eras of history, for, in the totality of its ideas, it ultimately substantiates precisely the ideology of the working class, not of any other

social force. This disproves some people's assertions that dialectical materialism existed in ancient India, ancient China and other countries.

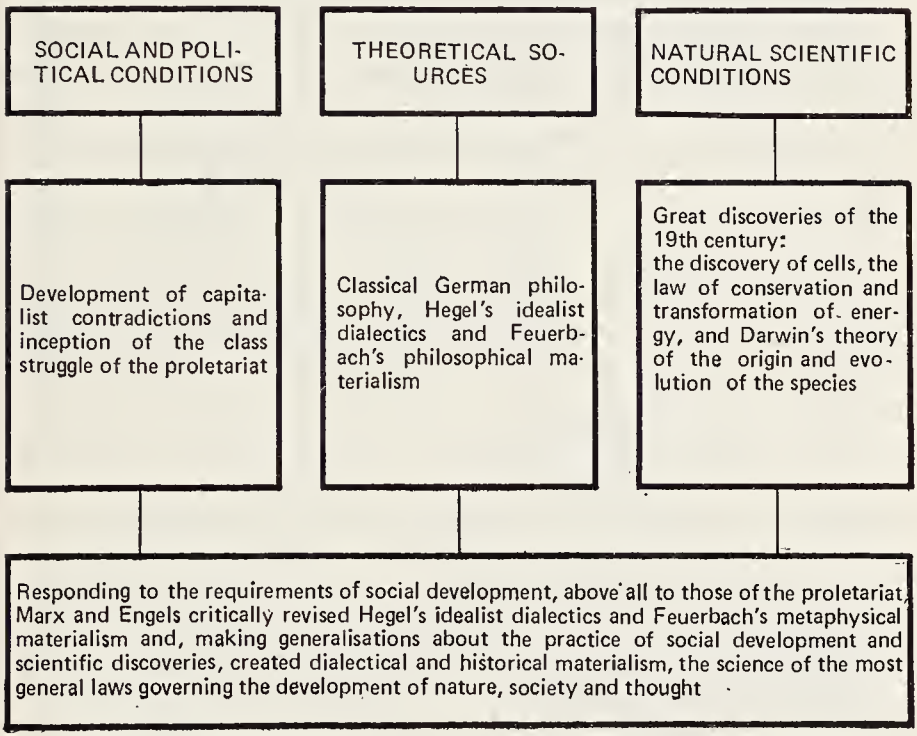
Moreover, dialectical materialism did not arise just through social factors. In the first half of the 19th century the natural scientific preconditions existed for the emergence of this new form of materialist philosophy. Natural science had been enriched by several outstanding discoveries. Of especial importance here were the discovery of the laws of conservation and transformation of energy, the cellular theory of animals' and plants' structure and the Theory of Evolution originated by the great English scientist Charles Darwin. These and other discoveries ran counter to the traditional metaphysical views of nature and led to the conclusion that it was false to conceive of the world as a totality of isolated and immutable things. The successes of natural science in the mid-19th century required that the prevalent mechanistic notions about natural phenomena be abandoned. They convincingly demonstrated the qualitative variety of forms of movement, the connection between them, the conversion of some phenomena into others, and development in the various spheres of nature. All this provided an irrefutable argument in favour of a dialectical outlook on the world. The great scientific breakthroughs of the period were theoretically generalised by Marx and Engels in creating dialectical materialism.

Finally, theoretical sources also played an important role in the formation of Marxist philosophy. It is necessary to dwell on this aspect in more detail because the relationship between dialectical materialism and the preceding philosophy is not always treated correctly. There is a tendency to deny the originality of the dialectical materialist, Marxist philosophy and interpret it as a mere combination of the ideas propounded by the German philosophers Hegel and Feuerbach. Moreover, some people falsely ascribe to Marxism a disregard for the valuable ideas worked out by mankind over its long history. On the basis of this some Indian philosophers assert, for example, that dialectical materialism is 'untenable' and inapplicable to Indian conditions, since Marxist philosophy allegedly denies spiritual values and supreme moral ideals.

There is only one thing we can say about such assertions: they

are untrue. Marxism cannot be either opposed to or isolated from the achievements of civilisation. The founders of dialectical materialism provided answers to the questions posed by advanced thinkers of the past. Karl Marx, wrote Lenin, 'based his work on the firm foundation of the human knowledge acquired under capitalism. . . . He reconsidered, subjected to criticism, and verified on the working-class movement everything that human thinking had created, and therefrom formulated conclusions which people hemmed in by bourgeois limitations or bound by bourgeois prejudices could not draw.'[1] The direct theoretical sources of Marxism were German classical philosophy, English

CONDITIONS FOR THE EMERGENCE OF MARXIST PHILOSOPHY



[1] V. I. Lenin, 'The Tasks of the Youth Leagues', *Collected Works*, Vol. 31, Moscow, 1977, pp. 286-87. Here and further quotations of Lenin are taken from: V. I. Lenin, *Collected Works*, Progress Publishers, Moscow.

political economy and French utopian socialism. Insofar as we are primarily concerned with the relation of Marxist philosophy to its ideological predecessors we shall briefly describe the basic tenets of German classical philosophy.

2. The Philosophical Predecessors of Marxism

The doctrines of major 18th- and 19th-century German philosophers are usually called classic in the history of German philosophy. Classical German philosophy was founded by Immanuel Kant (1724-1804) and further developed by Johann Gottlieb Fichte and Friedrich Wilhelm Joseph von Schelling. Marxist philosophical ideas were especially influenced by the philosophies of Hegel (1770-1831) and Feuerbach (1804-1872).

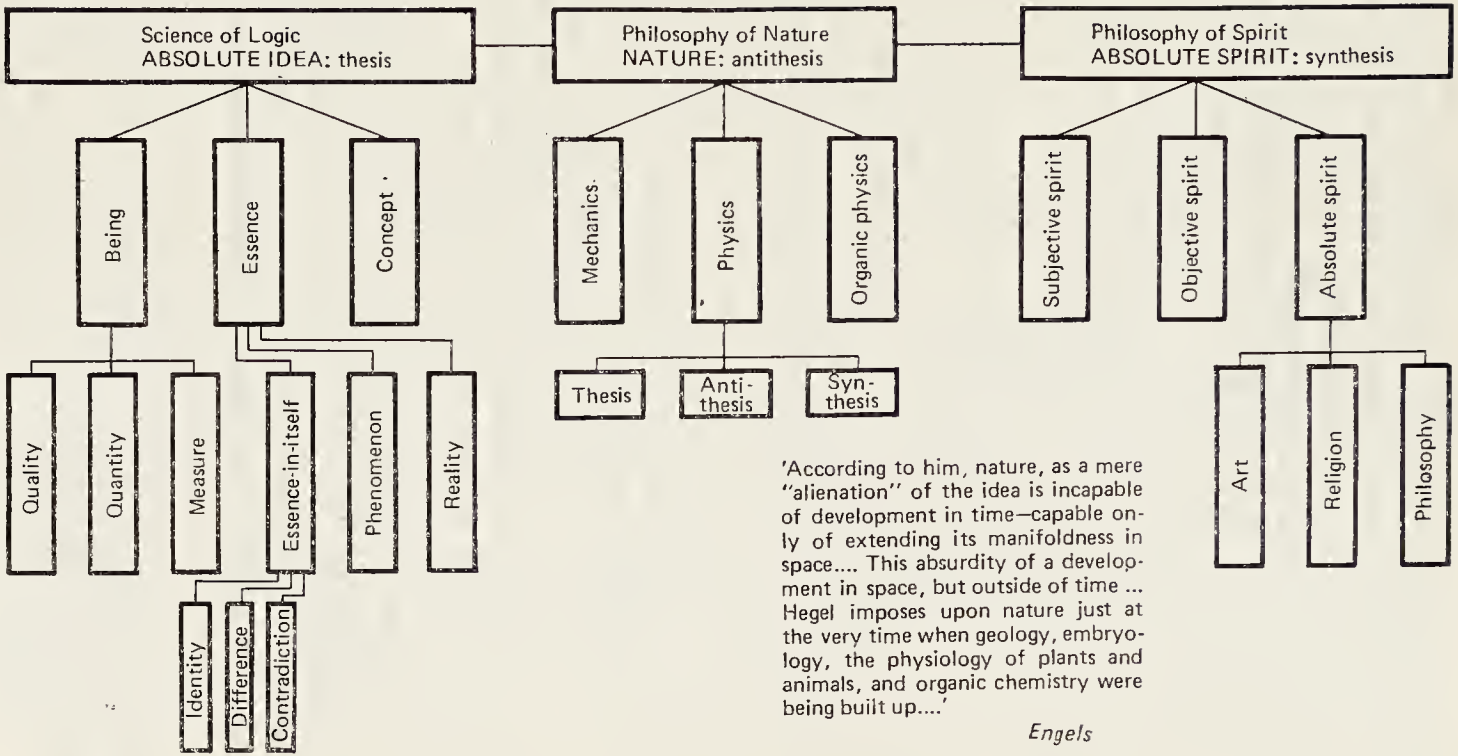
Georg Wilhelm Friedrich Hegel answered the fundamental question of philosophy from the position of objective idealism. But unlike objective idealists of the past (e.g. Plato), he developed a theory of dialectical idealism. According to him, the true reality and basis of all that exists is an impersonal mind or reason which he called the Absolute Idea. That world idea exists eternally and contains in itself, *in implicite,* all possible phenomena of nature and society. The Idea is capable of self-cognition and hence self-development during which it passes through different stages that more fully reveal its inner content. 'Being is thought,' wrote Hegel.[1] 'It [Thought.—*Tr.*] is not a subject at rest, which inflexibly carries accidents, but the concept that sets itself in motion and takes its definitions into itself.'[2] The world reason first unfolds in the sphere of pure thought outside time and space, and passes to the 'Other-being', i.e., is found in nature (or, simply, creates it). Thus in Hegel the material world is secondary and foreign to the idea's true being. The idea returns to its own abode of pure thought only at the stage of philosophy reached after having been manifested in the forms of state, art and religion.

Hegel's philosophy contained a number of rational, valuable

[1] G. W. F. Hegel, *Phänomenologie des Geistes,* Akademie Verlag, Berlin, 1971, p. 45.

[2] *Ibid.*, p. 49.

CHART OF HEGELIAN PHILOSOPHY



'According to him, nature, as a mere "alienation" of the idea is incapable of development in time—capable only of extending its manifoldness in space.... This absurdity of a development in space, but outside of time ... Hegel imposes upon nature just at the very time when geology, embryology, the physiology of plants and animals, and organic chemistry were being built up....'

Engels

postulates. Hegel contrasted the dialectical method he worked out on an idealistic basis to the metaphysical view of the world that was predominant in the science and philosophy of the period. Reality was interpreted in accordance with this method as a totality of interconnected and internally contradictory phenomena that were thus subject to qualitative change and negation. Hegel held that reality (let us recall that by reality he ultimately meant a necessary form of the world reason's being) developed according to the dialectical law of the interpenetration of opposites, the conversion of quantity into quality and the negation of negation. These and other ideas of Hegel's could be used for developing the theory of dialectical materialism.

Yet on the whole Hegel, being an idealist, could not arrive at a genuinely scientific understanding of dialectics. His philosophy suffered from a deep-seated internal contradiction between system and method. He tried to embrace all existing knowledge about nature, society and consciousness in his system, claiming to have produced the absolute, final truth. His philosophical system was therefore metaphysical in its foundation. His method, on the other hand, i.e., the way his Idea developed itself, was dialectical. Dialectics, as we know, rejects the state of final completeness and demands that everything be seen in infinite development. Hegel, however, sacrificed the positive thrust of his dialectical method to his conservative system of objective idealism. According to him, development does not occur everywhere and always. There is no development in nature, it only takes place in the bosom of the Absolute Idea, constituting its base. The Absolute Idea itself, having attained a certain stage in its development, ceases to ascend further and comes back, which shows that Hegel's dialectics is exclusively retrospective. Hegel believed that the history of society would end in a constitutional estate Prussian monarchy and the history of philosophy would culminate in his idealist system. Hegel mystified development by reducing it exclusively to the dialectics of concepts. His was an idealist dialectic, just as was his doctrine as a whole. With Hegel dialectic, wrote Marx, 'is standing on its head. It must be turned right side up again, if you would discover the rational kernel within the mystical shell'.[1]

[1] Karl Marx, *Capital,* Vol. I, Progress Publishers, Moscow, 1977, p. 29.

The founders of Marxism also relied on the materialist teaching of Feuerbach. Unlike Hegel, whose philosophy expressed the German bourgeoisie's political compromise with the Prussian feudal nobility, Feuerbach was an ideologist of the radical wing of the bourgeoisie in the 1830s and 1840s, the period of the nascent bourgeois revolution of 1848 in Germany. He resolutely opposed Hegel's idealism and idealist philosophy as a whole. Pointing to Hegelian philosophy's kinship with theology, he rejected the idealistic doctrine of world reason and argued that nature was primary and consciousness derivative of being. Feuerbach wrote: 'To make the spirit the beginning, the initial source, is to misinterpret the natural order.'[1] It is not philosophy's aim, as he firmly believed, to analyse empty abstractions like the Absolute Spirit, for it is altogether wrong to separate thinking from the brain, to conceive of it as something independent; one must study nature and man such as they are. Nature exists in and of itself and it should be explained of itself, man being a part of it. Nature exists in space and time. It is knowable, this knowledge being the result of reflecting the outside world through man's sense organs and thought rather than a purely logical process of developing abstract categories. In his polemic with Hegel he wrote: 'The old philosophy maintained that only the reasonable was true and real, whereas the new philosophy says that only the human is true and real; indeed, only the human can be reasonable; only man is the measure of reason.'[2]

Thus, Feuerbach takes the living, sensuous man as the starting point to his materialist teaching, thereby developing the so-called anthropological approach to philosophy. From the anthropological stand he criticises the idealist notion of the subject as solely a thinking creature and shows that the religious theory of the duality of soul and body is fantastic and false. Relying on his knowledge of natural sciences Feuerbach reinstated materialism which had been superseded by Hegelian idealism in the early de-

---

[1] Ludwig Feuerbach, 'Vorlesungen über das Wesen der Religion', *Gesammelte Werke,* Vol. 6, Akademie Verlag, Berlin, 1967, p. 175.

[2] Ludwig Feuerbach, 'Philosophische Kritiken und Grundsätze', *Sämmtliche Werke,* Vol. 2, Druck und Verlag von Otto Wigand, Leipzig, 1846, p. 339.

cades of the 19th century. This is his great service to the materialist world outlook.

On the whole, however, Feuerbach's philosophy was historically limited and suffered from all the shortcomings already inherent in eighteenth-century materialism. His anthropological principle itself was metaphysical, for it treated man as a physiological and biological rather than a social creature. Real man cannot however be considered outside society and social relations. It is impossible to arrive at a correct conception of the history of society from an anthropological standpoint, and Feuerbach was an idealist in this respect. He believed that the different periods of human history only differed from one another by changes in religion. Having discarded all former religions Feuerbach considered it necessary to introduce a new, 'Godless' religion, a religion of love. 'It is in love alone,' he wrote, 'that God . . . is true and real',[1] '. . .where we have only two people, husband and wife, we already have religion'.[2] He essentially elevates sexual love and sexual relations to the rank of a 'religion'. Instead of considering these relations in terms of their natural social meaning he demands that these purely human relations of love and friendship be regarded as a new, genuine religion. It was of course a concession to the religious idealist outlook. Another essential drawback of Feuerbach's doctrine was that his criticism of Hegelian idealism disregarded the positive aspects of Hegel's dialectic. Feuerbach correctly insisted on the primacy of nature, but he was unable to comprehend its objective dialectics.

This brief survey of Hegel's and Feuerbach's philosophical views allows one to make judgements about the direct theoretical sources that played a role in the formation of dialectical materialism. To be sure, the founders of Marxism did not only creatively elaborate on just a few of these philosophers' rational ideas. They relied on all that was devised by their precursors. They also made theoretical generalisations about the achievements of natural sciences, used material from political economy and history, and

---

[1] *Ibid.*, p. 323.

[2] L. Feuerbach, 'Über das Wesen des Christentums', in *Beziehung auf den Einzigen und sein Eigentum, Kleinere Schriften,* Vol. II, Akademie Verlag, Berlin, 1970, p. 436.

gave a critical evaluation of utopian socialist ideas. Of great importance in forming Marx's and Engels's dialectico-materialist views was their analysis of the working people's struggle against the exploiters, and their personal participation in the class struggle as proletarian leaders. All this predetermined the emergence of the highest form of materialism, a genuine revolution in philosophy.

3. The Revolution in Philosophy

The Marxist philosophy, worked out by Marx and Engels throughout their lives, was above all expounded in such of their joint works as *The Holy Family* (1845), *The German Ideology* (1845-1846), *Manifesto of the Communist Party* (1848), Marx's *Theses on Feuerbach* (1849), *The Poverty of Philosophy* (1847), *Capital* (1867), *Critique of the Gotha Programme* (1875), in Engels's *Anti-Dühring* (1877-1878), *Dialectics of Nature* (1873-1886), *Ludwig Feuerbach and the End of Classical German Philosophy* (1888), *The Origin of the Family, Private Property and the State* (1884), and other works.

What is the Marxist revolution in philosophy? In reply to this question, we want to stress once again that the dialectico-materialist outlook on the world both rejected the whole preceding philosophy and used all that was valuable and progressive in it and in human culture in general.

A fundamental feature of dialectical and historical materialism is that above all it is a philosophy of the working class; the theoretical basis of the world outlook of the most advanced and consistently revolutionary class of modern society leading the struggle waged by the broad working masses against exploitation and social and national oppression. The philosophical doctrines of the past (both idealist and materialist, except those of the utopian socialists and Russian revolutionary democrats) were the outlook on the world held by the exploiting classes. Philosophical ideas were the property of a narrow group of "aristocrats of the spirit" within the ruling class, rather than that of the people. These ideas were obscure and alien to the interests of the millions of ordinary people. In social terms, the former philosophers, ideologists of the exploiting classes, only helped establish a new form

BASIC DIFFERENCES BETWEEN MARXIST AND HEGELIAN PHILOSOPHY

QUESTIONS	HEGELIAN PHILOSOPHY	MARXIST PHILOSOPHY
Which of the principal philosophical trends develops further? Which new elements have been introduced into it?	Objective idealism Laws and categories of dialectics	Materialism Dialectical and historical materialism
Which method of thinking does it employ and how consistent is it?	Dialectical method, but applied inconsistently	Dialectico-materialist method. Applied consistently
Is a complete philosophical system possible?	Yes	Impossible, since the world is developing *ad infinitum* and is inexhaustible both in quality and quantity
How does it relate to other sciences?	Imposes conclusions that run counter to reality	Relies on other sciences and helps to further develop them
World view of which class does it represent?	German bourgeoisie	Working class
What social goal does it have?	To prove that the world is reasonable and to make people socially passive	Revolutionary transformation of the world

of economic and political oppression rather than abolish all exploitation. The emerging dialectical materialism signified a clean break with earlier view of philosophy which regarded it as a business for individual thinkers. 'As philosophy finds its *material* weapons in the proletariat, so the proletariat finds its *spiritual* weapons in philosophy. . .'[1]

Marxist philosophy, unlike earlier materialist teachings, is marked by revolutionary dialectics. Pre-Marxian materialism was essentially metaphysical, from which standpoint it was impossible to form a scientific conception of nature and human history. Metaphysical materialism could not serve as the proletariat's spiritual weapon in the struggle for a socialist transformation of society. Marxist philosophy marks the collapse of the metaphysical world view and is at the same time opposed in principle to the idealist conception of history. Hegel, for example, was concerned exclusively with the dialectics of thought and concepts. He treated development only as a negation of one intellectual essence by another one, rather than as a real process of changing the things of the material world. The Hegelian dialectics produced, properly speaking, only an illusion of development, while actually establishing and justifying what existed. Materialist dialectics alone, created by Marx and Engels, is a scientific philosophical outlook on the world and an effective method of cognising and changing it. Materialist dialectics brings out the internal contradictoriness of natural and social phenomena and their development in the form of leaps and negation and is thus in essence critical and revolutionary. The radical upheaval in philosophy wrought by Marxism also consisted in the materialist answer it gave to the fundamental question of philosophy not only with regard to nature (which was also characteristic of past materialists) but also to society (in respect of which all previous thinkers, materialist and otherwise, had held idealist views). Marx and Engels extended materialism to an understanding of social life, that is to say, they created historical materialism. This was not a mere application of dialectical materialism to the his-

---

[1] K. Marx, 'Contribution to the Critique of Hegel's Philosophy of Law. Introduction'. In: Karl Marx and Frederick Engels, *Collected Works*, Vol. 3, Progress Publishers, Moscow, 1975, p. 187.

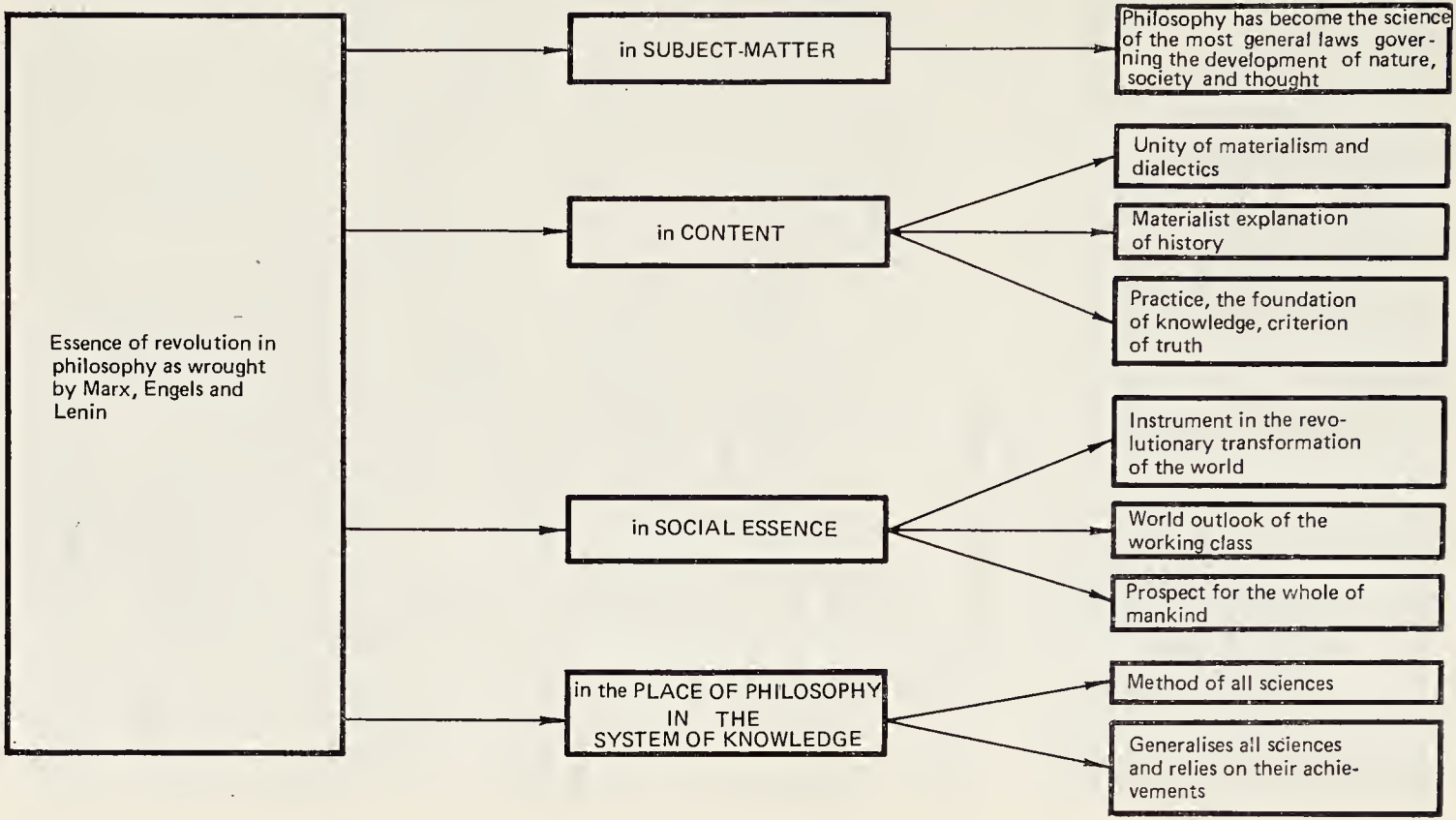
tory of human society. Dialectical materialism could not itself arise without a materialist explanation of the laws governing the development of society. At the same time, these laws cannot be analysed outside a dialectico-materialist approach. Dialectical and historical materialism therefore arose, and are now developing, as a single philosophical Marxist teaching. The materialist view of society is based on establishing the determining role ultimately played in social processes by the developing productive forces and production relations, by labour and the social action of the masses. Historical materialism has made it possible to conceive of human history as a law-governed process of development and replacement of socio-economic structures, to disclose the transient nature of the capitalist mode of production and to pinpoint the working class as the grave-digger of the bourgeoisie and the architect of a new, socialist social system.

The revolution in philosophy means finally that Marxism has put an end to the distinction between philosophy as pure theory and the practical activity of the working people and to the former materialism's contemplativeness in cognising reality. Bearing in mind all philosophical doctrines that served as the ideology of the economically or politically dominant classes, Marx formulated his famous thesis: 'The philosophers have only interpreted the world in various ways; the point, however, is to change it'.[1] The problem of providing a correct interpretation of the world is also relevant to the philosophy of dialectical materialism. Marx's aphorism means something different. We must not be satisfied with a mere theoretical interpretation of the existing world, for this can mean the justification of a social order inimical to the oppressed and exploited masses. The ideologists of the exploiting classes have for centuries imposed on many countries, including India, their view of philosophy as something alien to and distant from the burning issues that are of immediate concern to ordinary people. Shankara, a prominent proponent of the idealistic Vedānta doctrine, wrote that 'the philosopher must stand outside of life and look on it'.[2] Such contemplative

[1] K. Marx, 'Theses on Feuerbach'. In: Karl Marx and Frederick Engels, *Collected Works*, Vol. 5, 1976, p. 8.

[2] S. Radhakrishnan, *Indian Philosophy*, Vol. 1, The Macmillan Company, George Allen and Unwin Ltd., New York and London, 1951, p. 45.

FUNDAMENTAL CHANGES



philosophy, according to Marx, must be opposed by a philosophy which provides a scientific view of the world and substantiates the changes in the latter: dialectical materialism is precisely this kind of philosophy. The world can only be changed through people's practical revolutionary activity. Thus Marxism ties in theory (dialectical and historical materialism) and practice (the proletariat's class struggle and the working people's efforts to build a socialist and communist society).

Such are the qualitative features of dialectical and historical materialism that, taken in their totality, signify the Marxist revolution in philosophy.

4. The Proletariat's Scientific Ideology

With the emergence of dialectical and historical materialism philosophy became a science. As we have noted, pre-Marxian philosophy was also connected with scientific knowledge. But past materialism was inconsistent and restricted by metaphysics, and idealism essentially presented a distorted picture of reality, though some of its proponents had positive aspects to their doctrines. Moreover, pre-Marxian philosophy often gave a one-sided view of its relation to special sciences. The subject-matter of philosophy and special sciences was not clearly differentiated. Philosophers, such as Hegel, often created all-embracing systems, while Marxism defined the subject-matter of philosophy in a new way. Special sciences, such as physics, chemistry, biology, history, law, mathematics, etc., study the laws and phenomena of separate spheres or aspects of the objective world. Unlike them, dialectical materialism provides a scientific solution to the problem of the relation between consciousness and being, reveals the most general properties of matter, studies the fundamental laws of its development and the forms and methods of cognising reality by man, and pinpoints the fundamental motive force of social development. In short, dialectical materialism studies the most general laws of the development of nature, society and human thought. Marxist philosophy investigates these laws, relying on the latest achievements in natural and social sciences and by generalising from mankind's practice and historical experience.

The scientific nature of dialectical materialism is unshakeably connected with its partisanship. Marxist philosophy is a consistent dialectico-materialist teaching. It is opposed to all idealist and metaphysical doctrines. As an expression of the world outlook and social self-awareness of the working class, dialectical and historical materialism is the theoretical basis for communist ideology. Ideology is the reflection of reality in the light of class interests. The proletarian ideology has a scientific character, since the fundamental interests of the working class correspond to the determining trends of social progress. By bringing out these trends, therefore, Marxist philosophy serves as an ideological weapon in the revolutionary transformation of the world.

'In the name of a real, human person—the worker, trampled down by the ruling classes and the state,' wrote Lenin about Marx and Engels, 'they demanded not contemplation, but a struggle for a better order of society.'[1]

Here one should note that frequent allegations that Marxist-Leninist philosophy disregards the problem of humanism and of man, are completely groundless. Opponents of dialectical materialism often maintain that concentration on general laws of being excludes man from the sphere of philosophical reflection. On these grounds some assert that Indian philosophy must steer towards the bourgeois philosophy of existentialism rather than towards Marxism, since the former has focused on man's existence, its meaning, etc. But this idealist doctrine is unable to solve the problem of man correctly, or to point out ways to end the crisis of the individual under capitalism.

Only dialectico-materialist philosophy gives a genuinely scientific elucidation of the problem of man in all its aspects. It would be wrong to assert that Marxist-Leninist philosophy ignores man, on the contrary, it elevates him, substantiating unlimited opportunities man has to cognise the world and transform it in a revolutionary way. The main thing, however, is that dialectical and historical materialism is a philosophy of real humanism. It does not merely state, as existentialism does, man's suffering and the tragic nature of his existence in capitalist so-

---

[1] V. I. Lenin, 'Frederick Engels', *Collected Works*, Vol. 2, Moscow, 1963, p. 23.

ciety, nor does it just call for the establishment of humane relations among people. It also pinpoints the means to implement humanist ideals. Unlike idealist (particularly modern existentialist) or contemplative materialist world outlooks of the past, the dialectico-materialist world outlook is the most advanced world outlook of today. Its principal idea is the law-governed transformation of social relations by the working masses, headed by the working class, and the transformation of natural and social reality as a whole, in the interests of an all-round development of the human personality so as to build the most humane society—the communist one.

5. Marx and Lenin

Dialectical materialism differs from all preceding philosophical systems and modern bourgeois and revisionist doctrines in that it openly recognises its own partisanship and is critical of itself in principle. Marxist philosophy is a dynamic, creative teaching. It is constantly being enriched and developed on the basis of social practice and new scientific achievements. Marx and Engels insisted that their teaching should be regarded, not as a dogma, but as a guide to social action. Throughout their lives they worked on the philosophy of dialectical and historical materialism.

A new stage in the development of Marxist philosophy is connected with the name of Lenin, who upheld it against distortion by opportunists and the attacks of reactionary bourgeois ideologists. At the same time Lenin creatively enriched Marxist philosophical teaching by analysing the new historical conditions of the imperialist epoch and by generalising from the experience of the proletarian revolution and building socialism as well as from the achievements of modern natural science. Among Lenin's famous philosophical works are *What the 'Friends of the People' Are and How They Fight the Social-Democrats* (1894), *What Is to Be Done?* (1902), *Materialism and Empirio-Criticism* (1908), *Philosophical Notebooks* (1914-1915), *Imperialism, the Highest Stage of Capitalism* (1916), *The Right of Nations to Self-Determination* (1914), *The State and Revolution* (1917) and *On the Significance of Militant Materialism* (1922). Lenin subordinated his analysis of philosophical problems to the objectives of the revolutionary working-class movement. His development of

dialectical and historical materialism is inseparable from his political activity, from the history of the Communist Party of the Soviet Union and from the international working-class and communist movement.

One should stress at this point that it would be absolutely wrong to contrast Lenin with Marx. Some maintain that Marx was a philosopher, a theoretician, while Lenin was a practical worker little concerned with complex philosophical problems. It is also alleged that Marx relied on his recognition of objective economic necessity and was a humanist, while Lenin rejected regularities in history and relied exclusively on force. There are also suggestions that Leninism is none other than a purely 'Russian Marxism' and is hence inapplicable to other countries, particularly India. There are speculations about Chinese, Yugoslav and other brands of 'national Marxism'.

All these assertions are deeply erroneous or wilfully distort the point in question. Lenin was certainly not just a pragmatist unconcerned with philosophical problems. Without a correct theory there can be no success in revolutionary action. Lenin creatively developed all the component parts of the Marxist doctrine. He also provided a profound analysis of topical philosophical issues. He comprehensively developed the problems of dialectical materialism. He formulated a scientific definition of matter, elaborated on the thesis that motion and matter are inseparable, and revealed the laws governing the cognition of truth. His substantiation of the concept of an unbreakable union between natural science and philosophy is of signal importance. Lenin was the first thinker in this century who perceived the start of a mighty scientific revolution in the achievements of contemporary natural science. He revealed and made philosophical generalisations about the revolutionary meaning of the great naturalists' fundamental discoveries. His idea of the inexhaustibility of matter has become a common principle of modern science.

Lenin devoted special attention to a further development of Marxist dialectics and historical materialism. He comprehensively investigated the dialectics of social development, the interaction of economics and politics and the connection between social being and social consciousness. Lenin gave a Marxist analysis to new phenomena in the development of capitalism in

the new historical epoch, and worked out the theory of imperialism, which serves as a scientific basis for the strategy and tactics of the communist and workers' parties. He showed that imperialism is a parasitic, decaying capitalism, its last stage and the eve of socialist revolution.

Like Marx, Lenin taught that the social process is law-governed and that a revolutionary transformation of capitalist society is socially necessary. He further developed Marx's thesis on the decisive role of the popular masses in historical action. It is completely groundless to argue that there are differences between Lenin's and Marx's views on the laws of social development and humanism. They are unanimous on this and other points: there is no other way to real humanism but through a historically necessary socialist revolution. It is an indispensable condition for building a communist society with its genuinely humane goal of translating the ideas of equality, freedom, fraternity, labour, peace and happiness for all people into reality.

Lenin revealed new opportunities for speeding up the revolutionary process, which involved a subjective factor at a time when the general preconditions for replacing capitalism by socialism had already matured. The Bolshevik Party, headed by Lenin, led the people of Russia to victory in the Great October Socialist Revolution of 1917. This was a brilliant confirmation of the objective truth and the revolutionary transformative role of the Marxist-Leninist scientific theory and its unity with revolutionary practice. The experience of history and today's social development demonstrate that it is quite untenable to present Leninism as a purely Russian phenomenon.

Lenin worked out the theory of world socialist revolution, and substantiated general regularities of socialist revolution and socialist construction in all countries. At the same time he showed that various forms of socialist revolution and methods for the working class's revolutionary actions were possible and inevitable, as were specific forms for the organisation of socialist society. Lenin taught that 'fundamental revolutionary principles must be adapted to the specific conditions in the various countries'.[1]

[1] V. I. Lenin, 'Third Congress of the Communist International, June 22-July 12, 1921. Speech on the Italian Question', *Collected Works*, Vol. 32, Moscow, 1965, p. 465.

Of great importance for the developing countries are Lenin's postulates that successful national liberation revolutions hinge on the active involvement of the masses and above all of the growing working class into social management; on the alliance of the working class with the peasantry, on the development of broad democracy and on the reliance on world socialism and the international working-class movement.

Thus, Leninism is the only true and consistent creative development of Marxism, rather than one of its many 'interpretations'. Jawaharlal Nehru was quite right when he wrote: 'The greatest modern exponent of Marxism has been Lenin. Not only did he expound it and explain it, but he lived up to it. And yet he has warned us not to consider Marxism as a dogma which cannot be varied. . . .

'It is well to know these theories, because they are moving vast masses of men and women to-day and they may be of help to us in our own country.'[1]

Marx and Engels founded the philosophy of dialectical and historical materialism. Lenin raised it to a new stage. The Marxist-Leninist philosophy, this living, creative teaching, is constantly being enriched by new conclusions and theoretical generalisations.

The building of communism and socialism, the development of the world revolutionary process, the growth of the national liberation movement and the exacerbation of the ideological struggle require further development of Marxist-Leninist philosophy. The collective work of the fraternal communist and workers' parties and the efforts of Marxist philosophers from different countries have produced a number of fundamental theses deepening the dialectico-materialist teaching. These concern in particular the conclusions on the general regularities of socialist revolution and socialist construction, on the main contradiction of the modern epoch, the essence of mature socialism, the methods of building communist society, the dialectics of the struggle for democracy and socialism, etc.

[1] Jawaharlal Nehru, *Glimpses of World History*. Being Further Letters to His Daughter, Written in Prison, and Containing a Rambling Account of History for Young People, Lindsay Drummond Limited, London, 1949, p. 548.

Important philosophical postulates have been formulated in Marxist-Leninist theory, connected with the rapid development of natural science in the current scientific and technical revolution. Discoveries in nuclear physics, cybernetics, biology and other sciences are interpreted in a dialectico-materialist light.

In his Report to the 26th Congress of the CPSU (23 February 1981) Leonid Brezhnev stressed the importance of the creative development of the Marxist-Leninist theory and generalisation of new developments in life, of the need to apprehend everything that takes place in the world to enable the Marxist-Leninist party to exercise its historical role.

'The main thing,' he said, 'is that Communists, armed with the Marxist-Leninist teaching, see the essence and perspective of the processes in the world more profoundly and more correctly than anybody else, and draw the right conclusions from them for their struggle for the interests of the working class, the working people of their countries, and for democracy, peace and socialism.'

The 26th Congress of the Communist Party of the Soviet Union made a substantial contribution to the creative development of the theory of Marxism-Leninism. Its material provides a fundamental scientific analysis of the modern trends of social progress, develops the Soviet Peace Programme with an eye to the burning, vital international issues of today, and formulates the guidelines for the economic, socio-political and cultural progress of developed socialist society.

Each new stage in social and scientific progress presents mankind with new problems, and they can be correctly solved in due course only from the standpoint of a modern scientific philosophy. Marxism-Leninism is precisely such a philosophy.

Chapter III

THE WORLD AS LAW-GOVERNED MOVEMENT OF MATTER

The starting point of the Marxist-Leninist philosophy is the concept of matter. 'Matter is primary,' wrote Lenin. 'Sensation, thought, consciousness are the supreme product of matter organised in a particular way. Such are the views of materialism in general, and of Marx and Engels in particular.'[1] The study of the foundations of the dialectico-materialist teaching must therefore begin with an inquiry into the concept of matter.

This is necessary above all for a correct understanding of the essence of materialist philosophy. The fact is that the concepts 'materialism' and 'idealism' are far from always correctly used. Ordinary consciousness often interprets idealism as a disinterested approach, involving a belief in virtues, a love of man and an aspiration for ideals, and imposing expressly negative features on adherents of materialism. Thus, spokesmen for orthodox religion which reigned supreme in India for many centuries, grossly distorted the materialist doctrine and tried to present it in an unseemly light. Materialist views were equated with the most base sins, such as laziness, greediness, drunkenness, theft, depravity, gluttony, self-interest and stinginess, and believers were forbidden to study such views or even communicate with their adherents in any way. This distorted interpretation of materialism served as a basis for inculcating the idea that materialism was in general untenable and inapplicable to Indian conditions.

But materialism has nothing in common with such distortions.

---

[1] V. I. Lenin, 'Materialism and Empirio-Criticism', *Collected Works*, Vol. 14, Moscow, 1962, p. 55.

Moreover, only materialism can serve as the basis for transforming human relations according to the laws of beauty and humanism. The word 'materialism' derives from the concept 'matter'. Accordingly, we shall now proceed to describe its scientific content.

1. The Evolution of the Concept of Matter

The concept of matter serves to denote objective reality. The world that surrounds us is extremely varied and multiform. Animate nature consists of hundreds of thousands of species of plants, insects, fish, birds, and animals. Inorganic substances have diverse properties. Modern science studies phenomena in outer space that are strikingly unique in their properties: in some parts of the Universe, for example, a teaspoonful of substance weighs as much as 200 million elephants. In society, too, different peoples have had different instruments of production and economic and social relations, as well as forms of state, ideology, religion, traditions, customs, etc. at different periods of their history. Do such different and numerous phenomena and objects have something in common? Is there any unity and regularity in the multiformity of being? Philosophers have answered these age-old questions in many different ways.

Idealists have either altogether rejected the unity of the world (subjective idealism, dualism) or seen it embodied in an Absolute Spirit, Absolute Idea, Brahman, universal will or God (objective idealism). For the materialist philosophers the unity of the world lies in its materiality. The concept of matter itself, like the materialist doctrine as a whole, has changed substantially.

The ancient materialists sought to find the basis of all that exists, with which everything begins and into which everything converts. They tried to determine a kind of substratum or material of which the whole world is built. This primordial matter they usually identified with the most widespread types of matter: water, earth, air, and fire. For example, the earlier proponents of the Sāankhya school (7th-6th centuries B.C.) professed the existence of prakriti, the original and primordial cause of

the world. Prakriti was primordial matter, the changes in which resulted in the formation of the Universe. It was omniscient, eternal and one. It was the cause and real creator of the world, while purusha (the spirit) was only its attribute or property. Prakriti engendered five material elements—earth, water, fire, air and ether—the combination of which formed the whole world, including gods and men. This doctrine of primordial matter expressed the ancient thinkers' spontaneous and naive materialism.

The 17th- and 18-century metaphysical materialists treated matter as natural substance, as the ultimate essence and universal basis of all things. Substance was *causa sui* (cause of itself), it was absolute, immobile, uncreatable and indestructible, it was immutable and homogeneous. It thus differed from individual things and objects which could change, appear and disappear. A view of matter as the totality of nature's material bodies had taken shape by that time and remained in force until well into the 19th century. It ascribed to matter such specific physical properties as mechanical mass, extension, inertness, impermeability, atomic-molecular structure, and mechanical motion. For the time being such views did not contradict scientific data. However, at the turn of the century physics witnessed a revolution that radically changed the traditional views on matter, its structure and properties. Mechanistic and non-dialectical materialism could not explain the newly established facts about how mass changes depending on the velocity of physical objects, about radioactivity, the transformability of atoms, and the discovery of electrons. A view became widespread that matter had 'disappeared', while idealists of various hues asserted that the new physics had 'refuted' materialism. The category of matter obviously needed a different interpretation from that obtaining in the past.

In his famous book *Materialism and Empirio-Criticism,* Lenin showed in his polemic with idealism that a revolution in natural science could only mean the collapse of the former metaphysical notions of matter rather than its 'disappearance'. These new discoveries in physics, together with modern scientific achievements, can only properly be interpreted from a standpoint of dialectical materialism. The crisis of physics at the

turn of the century is explained by many naturalists being innocent of dialectics. They ascribed too narrow and ultimately incorrect a content to the concept of matter.

What definition of matter, then, could combine a universality of world outlook with heuristic significance? Such a definition was formulated by Lenin. 'Matter,' he said, '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.'[1] Let us point to two essential features in the Marxist philosophy's conception of matter.

Matter, as one can see, is defined within the framework of the fundamental question of philosophy, in the context of its relation to consciousness, rather than according to the tradition of pre-Marxian materialism that opposed matter as an immutable substratum to changing things. The scientific definition of matter places major emphasis on its essential distinction from consciousness, since it is of paramount importance for philosophy.

This definition above all stresses the property of all objects and phenomena of the surrounding world to exist objectively, outside and independently of man's and mankind's consciousness. Matter is also an objective reality that has been engendered by nobody and by nothing; and it does not presuppose any reasons or conditions for its existence. It is in this sense, rather than in terms of some absolutely immutable primordial essence that we can refer to the substantiality of matter as an expression of its primacy. Matter is in itself the source of the infinite multiformity of things and processes of the objective world. It also engenders consciousness, which is its highest product.

Finally, the dialectico-materialist treatment of matter lays emphasis on the things and phenomena of the outside world being sensuous and natural rather than supersensuous and supernatural in character. The surrounding material things and phenomena directly or indirectly (e.g. through instruments used in scientific experiments and observation) affect our sense or-

---

[1] V. I. Lenin, 'Materialism and Empirio-Criticism', *Collected Works*, Vol. 14, p. 130.

DEFINITION OF MATTER BY LENIN

'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.'
Lenin

First aspect of the fundamental question of philosophy

DOES MATTER EXIST?

'The *sole* "property" of matter with whose recognition philospphical materialism is bound up is the property of *being an objective reality*, of existing outside the mind.'
Lenin

Second aspect of the fundamental question of philosophy

WHAT IS RELAYED TO MAN VIA HIS SENSATIONS?

Man perceives matter rather than spirit or something unknown. 'Matter is that which, acting upon our sense-organs, produces sensation.
Lenin

'The existence of matter does not depend on sensation. Matter is primary. Sensation, thought, consciousness are the supreme product of matter organised in a particular way.'
Lenin

Recognition of the materiality of the world entails the substantiation of the objective character of regularity, causality and necessity in nature and society. No single science could develop unless its theories reflected the particular properties and aspects of objectively existing matter, developing according to its own laws

Sensations are not symbols or signs but images, pictures of the external world. 'Not a single fact was or could be cited which would refute the view that sensation is an image of the external world'
Lenin

gans and are perceived by them. The materiality of the world is inseparable from the sensual character of its manifestation. This distinguishes matter as objective reality from the 'objective reality' of world reason, Brahman, the Absolute Idea or any other religious, idealistic notion that can only be conceived of but not given in man's sensations.

The above prompts one to the conclusion that it would be erroneous to include any specific characteristics (physical, chemical, etc.) in the philosophical concept of matter. It would be wrong, for example, to reduce the concept of matter to the concept of substance (gas, liquid, crystals, etc.) or the particles (atoms, molecules, etc.) that go to form it. The electromagnetic field is objective, sensorily perceived reality, just as substance is. Despite all the differences in their properties substance and field are therefore merely specific forms of matter. There are also many other forms of matter in the world that are distinct in their quality and unknown to science. Matter is endlessly varied and inexhaustible in the specific forms of its manifestation.

2. The Infinity of Nature

Scientific knowledge of matter is continuously developing and delving deeper. Our ideas about the properties of the phenomena of the surrounding world and the structure of objective reality are becoming more diverse. The philosophical concept of matter incorporates recognition of the infinity and inexhaustibility of the objective world. 'The "essence" of things, or "substance",' Lenin wrote, 'is *also* relative; it expresses only the degree of profundity of man's knowledge of objects; and while yesterday the profundity of this knowledge did not go beyond the atom, and today does not go beyond the electron and ether, dialectical materialism insists on the temporary, relative, approximate character of all these *milestones* in the knowledge of nature gained by the progressing science of man. The electron is as *inexhaustible* as the atom, nature is infinite. . . .'[1] The development of science over recent decades has fully corroborated this idea.

[1] V. I. Lenin, 'Materialism and Empirio-Criticism', *Collected Works*, Vol. 14, p. 262.

Delving into the heart of the atom, for example, has led to the discovery of over 300 varieties of elementary particles. Some of them are stable, but the bulk are the so-called resonance particles, which are extremely unstable. New microparticles are being discovered in every passing year.

The properties of microparticles are truly inexhaustible. They possess mass, charge, magnetic momentum, structure, the ability to transform into other microparticles, etc. The microparticle itself does not appear to be a further indivisible 'elementary' particle of matter. Modern science views it as a kind of extended clot of matter the density of which is two to three times that of the substance of the atomic nucleus. The proton and neutron have proved to have a complex structure, while the structure of other particles can only be guessed at from our present fragmentary knowledge.

An important step in revealing new forms of existence and forms of matter was the establishment of the unity of particles and antiparticles. Investigations have shown that each elementary particle has a corresponding antiparticle that is opposite to it in some properties (e.g. charge). For instance alongside an electron, there is a positron (i.e. an electron with a positive charge), alongside a proton and neutron (nuclear particles), there is an antiproton and an antineutron, etc. There might even exist whole atoms of 'antisubstance', a specific form of matter which differs from ordinary matter in that its structural elements are antiparticles.

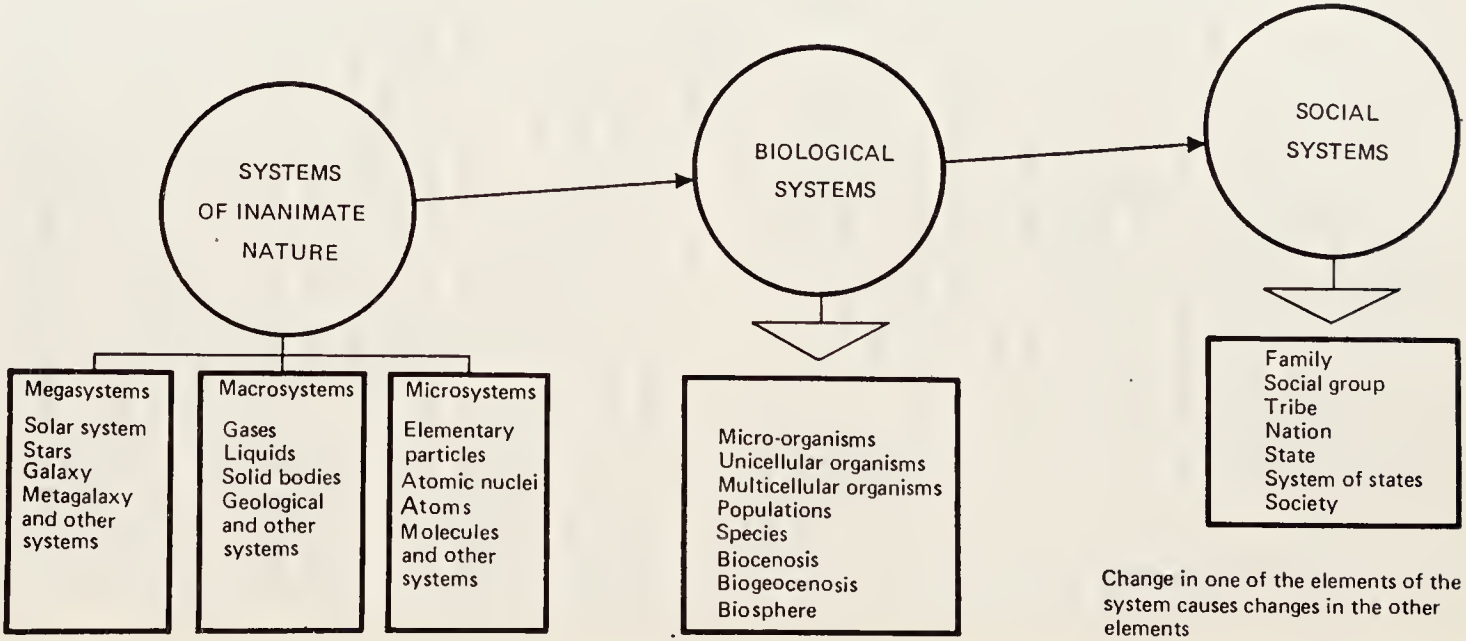
Our notions of physical fields have also undergone substantial changes today. It has become known that, in addition to the electromagnetic field, the field of gravitation and the nuclear, electron-positron and other fields are essential in physical processes. It has also become clear that the boundary between physical fields and substance is not so sharp as it seemed. Fields and substance interact and transform into each other at the microlevel. The distinction between substance and field becomes meaningless in the processes taking place within the atom.

Thus, modern science has proved the fallacy of limiting the concept of matter to the properties of its substantial form alone. This must be specially stressed because of frequent attempts to treat discoveries of particular physical phenomena in an ideal-

STRUCTURE OF MATTER

'The whole of nature accessible to us forms a system, an interconnected totality of bodies, and by bodies we understand here all material existences extending from stars to atoms.'

Engels



Change in one of the elements of the system causes changes in the other elements

istic way. For example, modern idealists refer to this transformation to back their assertion that matter has been annihilated and passed into non-material energy. Is that so? The above transformation should be regarded as a transformation of one kind of matter (substance) into another (field), not as the 'annihilation' of matter. The boundaries between different kinds of matter are therefore relative and specific physical characteristics of some separate forms of its existence cannot be ascribed to objective reality as a whole.

The inexhaustibility of objective reality is revealed both in the cognition of the microworld and of the macroworld, the space. Our Earth is one of the planets of the Solar system, and the Sun is one of the teeming billions of stars forming our Galaxy, the Galaxy itself being a small part of the Metagalaxy. The latter is the sum total of stellar systems moving in the vast expanses of the observable part of the Universe. Cosmic distances are tremendously great indeed.

Not only cosmic scales are striking, but also the multiformity of events occurring in the vast expanses of the Universe. Qualitatively new types of cosmic objects have been discovered, such as 'black holes'—special celestial bodies marked by strong compression and the density of the substance—quasars and pulsars. Their gravitation fields are so powerful that they emit no radiation, no particles.

Whatever wonderful natural phenomena science may be confronted with in the future, this will always mean one thing: the discovery of new aspects of matter infinitely varied and inexhaustible in its properties and forms.

3. Motion and Rest

Marxist philosophy closely connects the concept of matter with the capacity of matter to move. To be an objective reality in its various manifestations means to exist in motion. Motion is an inalienable property of matter, its mode of existence and an expression of its inherent activity.

It is not very difficult to see that bodies are characterised by motion. Animals and people move in space, a mature fruit falls to the ground, etc. Many pre-Marxian materialist philosophers

recognised the universal nature of such instances of mechanical displacement, but they were unable to correlate motion with substance owing to their narrow, metaphysical outlook on the world. Dialectical materialism has rejected the doctrine on the immutable substance of the world. Matter does not exist without motion.

Engels wrote that 'motion as applied to matter, is change in general.'[1] Motion, taken in the broadest sense of the word, should be understood as any process of interaction, any change unfolding in space and time. Changes in material objects may be external and internal, quantitative and qualitative, necessary and accidental, etc. Everything in the world is in change and motion: microparticles in their mutual transformations and various interactions, celestial bodies moving at colossal velocities through space, living creatures in continuous metabolism with the environment, society, with its members' unceasing labour activity, and man's thinking activity which reflects objective reality.

Recognition of the absolute nature of motion, i.e., that matter cannot exist in any form outside motion, is not tantamount to denying that there are moments of rest and equilibrium in the objective world. Motion is the unity of two opposites, changeability and stability. Rest is a persisting state of motion necessary for the relative qualitative definiteness of things. As a child becomes a youth and then a grown-up it undergoes physical and mental changes, though still remaining an individual. To take other examples, a particular bourgeois state may be ruled by successive factions of the capitalist class, monopolies may exercise their domination in different forms ranging from military dictatorship to 'plural' democracy, etc. Yet the essence of these political changes is the same: monopoly capital's class domination. If motion lacked moments of stability and temporary equilibrium the material world would be in a state of amorphous, undifferentiated chaos. Adherents to the so-called relativism deny any rest or stability in motion. They consider everything relative and fluid and reject any qualitative definiteness

---

[1] Frederick Engels, *Dialectics of Nature*, Progress Publishers, Moscow, 1974, p. 247.

in the process of motion. They are wrong, however. The waters of the Ganges have flown for thousands of years. It is a famous illustration of dialectics that you cannot enter the same river twice. The relativists maintain, however, that you cannot ever enter it once, for it carries ever new waters. A Greek philosopher did not even name objects but simply pointed to them with his finger in the belief that they turn into something else once they are fixed with a word. The absurdity of such views is self-evident. A river does not cease to be such because it flows. And when believers plunge into the (according to them) sacred waters of the Ganges, they plunge precisely into the Ganges.

So, motion implies rather than excludes its opposite, the factor of stability, rest, or equilibrium. All rest is however relative, while motion and change are absolute. This is to be understood as an indication of the self-activity of matter, rather than in the sense that motion is possible without rest. It is precisely motion that gives rise to new qualitative states in the world, while the function of rest is to preserve them. Rest is always relative. When we are sitting at table we are motionless, relative to the building, and the latter is motionless relative to the Earth. At the same time we are continuously moving, since the Earth with its surrounding atmosphere is revolving on its axis and around the Sun, the latter in turn is moving together with the rest of the Galaxy, etc. Rest is also relative in the way it preserves stability of the material objects. Any state is temporary and transient, and any thing or phenomenon has a beginning and end to its existence. The motion of matter is uncreatable and indestructible. It can only change its forms: No single phenomenon or object can lose its ability to change or be deprived of motion under any conditions. Bodies continue changing even when their temperature is close to absolute zero; some metals, for example, exhibit the property of superconductivity, lead becomes a semiconductor, helium a superfluid, etc.

The source of the internal activity of matter lies within it, in its inherent potentiality for the perpetual changeability of its concrete shape and form of existence. Motion is absolute, for it is unrelated to anything external that could determine it. There is nothing else in the world except eternally moving matter, its forms, properties and manifestations.

Any way of constructing rest as absolute is as intolerable in the conception of motion, as is the relativist interpretation of the latter. Many philosophers, however, adhered precisely to such views since they regarded substance as something inert and immutable, and explained the motion of natural bodies through the action of an outside force. Logically this gave rise to the following question: if one body sets another in motion, the latter a third, etc., how then did they start to move? Who wound up the clock of the mechanism of nature? Those who reasoned this way had to recognise the existence of something that provided the initial impulse. Relative to seemingly motionless nature, such an entity could only be God. Nowadays too, some people propound the idea of rest and stability as absolute, in the form of the so-called theory of equilibrium. Its adherents would make us believe that motion is always relative and temporary, for it is allegedly nothing else but a violation of the state of equilibrium 'normal' for a given phenomenon. The equilibrium theory is often used in philosophy to substantiate the 'illogicality' and 'invalidity' of the struggle for national and social emancipation in the capitalist world, and to justify the need for class reconciliation and 'social partnership', etc. The political bias of such conceptions is clear. They are intended to frustrate the workers' aspiration for radical change in social relations. Philosophically, the equilibrium theory is utterly untenable. Motion, as we have shown, is not anomaly or chance, but the absolute mode of existence of matter.

4. The Objective Reality of Space and Time

Further elucidation of the dialectico-materialist world outlook involves considering space and time as fundamental properties of matter, alongside motion. 'There is nothing in the world but matter in motion,' Lenin said, 'and matter in motion cannot move otherwise than in space and time.'[1]

At first glance the question of what space and time are does

[1] V. I. Lenin, 'Materialism and Empirio-Criticism', *Collected Works*, Vol. 14, p. 175.

not seem difficult: There are numerous bodies in the surrounding world that are located relative to each other: nearer, further, higher, lower, to the left or to the right; they also differ in size, shape, etc. Processes and events also occur around us either simultaneously or in a definite sequence, some earlier, others later. It has also long been observed that different totalities of objects may be in the same place but at different times, that things are perceived differently depending on their distance from the observer, and also that time is perceived differently when it is packed with dynamic events than when it is full of dreary waiting. The theoretical comprehension of such observations already poses certain problems, such as whether space and time exist outside material objects and events, and whether they are part of objective reality or a special form of man's sense impressions. Philosophers have answered these questions in different ways.

A specific conception of space and time depends on the solution to the fundamental question of philosophy. It is also connected with achievements made in the scientific study of the material world. Idealistic, religious doctrines usually interpret the way the object seems to possess spatial and temporal properties as a sign that it is not true but secondary, conditioned and creatable. According to objective idealism, space and time were engendered by the Spirit together with the material world. The Spirit itself, however (the Absolute Idea, God, etc.) is outside space and time. Idealists say that unlike creatable things that are possessed of existence in time, the category of time is inapplicable to the Spirit (God), for God is outside time and is eternal.

Subjective idealists believe that space and time depend on man and only exist in his perception and mind. According to the English philosopher David Hume (1711-1776) the world was the sum total of the subject's perceptions. People did not and could not know what was behind their sensations or even whether there was anything apart from them. Perceptions either arise one by the other or one after another. In the first case, Hume believed, the mind produced an association of spatial juxtaposition of things, in the second case, a temporal one.

A similar idealistic treatment of space and time is to be found

in the views of modern bourgeois philosophers. Some of them (the so-called neopositivists) interpret space, length and mass as mere symbols of physics rather than concepts reflecting the objective properties of nature itself.

Unlike the idealists, the outstanding representatives of pre-Marxian materialism argued that the objectivity of space and time is a condition and basic forms of the existence of nature. Dialectical materialism fully preserves the earlier progressive thinkers' idea of the infinity of the world in space and its eternity in time. From recognising the world as matter in law-governed, natural motion, the objective reality and absolute nature of these fundamental forms of its existence are an obvious conclusion.

One should specify that the objective reality of space and time does not signify recognition of any special essences outside matter in motion. Space and time are incorporated in the very concept of matter as its universal attributes. At the same time, though being objective reality, they are not matter but its properties, and by virtue of this possess materiality. But matter and materiality are not the same thing. The relations between things and their properties, the natural laws of the objective world, and motion in space and time, are material by nature, while matter is the bearer of all these properties and attributes, the basis of objective relations among phenomena, and the sensually perceived substratum in a state of constant change.

What are space and time? They are the necessary, fundamental conditions for matter to exist in motion; inseparable from it, the most general forms of the orderliness and interaction of material phenomena. Specifically, the concept of space expresses the universal mode of coexistence of interacting material objects and their extension, juxtaposition and structuralness. The concept of time denotes the universal form of objective reality's changing, which expresses the period of existence of material systems and the succession of events occurring in the world.

There was once a widespread view that space and time were the empty repositories of bodies and events. Such was the standpoint of the famous English physicist Isaac Newton (1642-1727), whose doctrine exerted no small influence on notions about space and time in 19th-century philosophy. Space for Newton was

an immobile, continuous, homogeneous, infinite repository for all extended bodies, corpuscles and their movements, while time was pure, homogeneous, regular and continuous duration, infinite and immutable. He saw space and time as objective realities which comprised everything and depended on nothing, and rejected any connection between the motion of matter and the properties of space and time, as well as any connection between space and time themselves. Today we can see that these views were limited, as they drew a sharp distinction between matter and its attributes.

5. The Interconnection Between the Universal Attributes of Matter

Dialectical materialism assumes that space and time as forms of the existence of matter cannot exist outside it; outside matter they are empty notions and abstractions that can exist only in our minds.

Modern natural science provides convincing confirmation of the dependence of spatial and temporal relations on the motion and interaction of material objects. Einstein's theory of relativity proves that the spatial and temporal properties of bodies change with their velocities. As a body's velocity increases, a relative shortening takes place in its length, according to the direction in which it is moving, its mass grows and the rhythm of processes occurring in it slows down. Science has also proved that the geometric properties of space and the course of temporal processes change under the impact of the gravitational forces. There are facts to bear this out. For instance, microparticles found in cosmic rays have a greater life-span than when they exist at less great velocities. It has also been established that light rays curve under the impact of the gravitational fields which testifies to the limitations of the Euclidean geometry when applied to the Universe. It has also been found that physical processes slow down in cosmic objects with strong gravitational fields, etc.

The spatial and temporal parameters of material objects such as extension, life-span, etc., prove to be relative to and dependent on the force of gravitation and the velocity of the material

systems. Contrary to Newtonian notions, space must therefore be regarded as heterogeneous in different points and states of the Universe, and the flow of time as irregular. Modern physics has substantiated changes in the extension of bodies and in temporal intervals depending on increases in velocity, thus demonstrating an inherent unity of space and time as objective forms of the existence of matter.

Needless to say, the relativity of spatial-temporal properties should not be interpreted as an argument to back the existence of material entities (e.g. microparticles) outside space and time. Spatial-temporal relations are universal and necessary for any material process (including those in the atomic world), and in this sense they are as absolute as moving matter itself.

Spatial-temporal relations, as the fundamental conditions for the existence of moving matter, also possess some other properties. Space, for instance, has the property of three-dimensionality, which is also closely connected with the general regularities of motion. The position and extent of any body, as well as the realisation of specific processes and the interaction of bodies in space can be exhaustively described with the aid of three coordinates (length, width and height). Physics uses the concept of four-dimensional space-time, which results from the unification of the one temporal with the three spatial coordinates, to describe the position and motion of bodies. Mathematics operates with the concept of multidimensional spaces. However, these spaces are logical constructs used to denote relations between various properties (plane, point, size, colour, temperature, velocity, pressure, vector, etc.) as well as to express the spatial characteristics of extent and structure proper. The real space of matter in motion is three-dimensional. Modern science proceeds from this in its studies of any processes of nature in the microworld, macroworld or cosmos. The spiritualist assertions that one comes across nowadays, that the spirits of the dead abide in the four- or n-dimensional space are therefore nothing but mysticism, incompatible with scientific knowledge.

As distinct from space, time as a form of the existence of matter in motion is unidimensional, unidirectional and irreversible. Material action is always directed in objective reality from causes to their effects. The process of the self-development of

matter is irreversible, which is expressed in the way time is only able to change from the past to the future, not the other way round.

Time only flows in one direction and is irreversible. Action is only possible in relation to present and future phenomena, and not to past ones. The idealist philosophical thesis of the so-called inversion, or reversibility of time, which can allegedly flow from present to past, runs counter to the data of science. Modern natural science connects the irreversibility of time with the irreversibility of fundamental entropic, electrodynamic and cosmological processes.

The conception of the world as logically moving matter prompts the conclusion that space and time are infinite. Matter is infinite because, firstly, it is absolute objective reality outside which no existence (of any Spirit, God, etc.) is possible. Secondly, matter is infinite in its structure and in the qualitative multiformity of the specific forms of its existence (of things, phenomena, processes, events, properties and relations). It is infinite, thirdly, by virtue of its inherent self-activity, self-motion and self-development that generate ever new forms of material being. The infinity of matter in motion implies the infinity of the basic forms of its existence, i.e. space and time.

Metaphysicists from all periods have negated the infinity of the material world. For instance, the German philosopher Eugen Dühring (1833-1921), whom Engels scathingly criticised, believed that time had a beginning. This entails the sole conclusion that the world was set in motion by an initial impulse for which the only adequate explanation can be a divine act. Neothomism, modern Catholic philosophy, ascribes the attribute of infinity only to God, and looks upon nature, as well as space and time, as something created.

At the 16th World Congress of Philosophy various bourgeois scholars tried to prove that modern cosmological data confirm the dogmas of the Act of Creation of the Universe. To back this assertion, they referred to the 'curvature' of the Universe as follows from Einstein's theory of relativity, the 'dispersal of galaxies' observed in our Universe, etc. These discoveries are interpreted as an alleged proof of the finiteness of the world in space (the idea of the so-called closed Universe, the ultimate ra-

dius of the Universe), and in time (the creation of the Universe from the prime atom).

However, modern scientific achievements do not contradict but serve to confirm more firmly the dialectico-materialist conception of the world. Thus, the concept of the 'closed Universe', and equally the existing models of the expanding and pulsating Universe, even if they can be explained in theory, only refer to a certain part, a 'fragment' of objective reality, rather than to the whole world or matter in motion. The 'closed quality' and 'finiteness' of this 'fragment' of matter ('our Universe') does not exclude but presupposes the existence of other, countless and varied worlds that may not necessarily look like ours. Any material formation (be it an atom, the Sun, the Galaxy, the Metagalaxy or the whole of our Universe, which should not in general be identified with matter in motion) has its limits in space and its beginning and end in time. Matter, however, and its motion are infinite. The material world, of which 'our' world is only one of the existing manifestations of objective reality moving in space and time, is also inexhaustible. This idea was expressed by certain pre-Marxian materialists (Giordano Bruno and others) and stressed by Engels, who said: 'For the rest, the eternally repeated succession of worlds in infinite time is only the logical complement to the coexistence of innumerable worlds in infinite space. . . .'[1] What is more, there cannot exist systems that are absolutely closed in space, and the model of the 'closed' Universe can also be brought into question from this standpoint.

The infinity of space and time is not revealed in an endless, monotonous existence of matter in the same forms and states. Objective reality is an endless emergence of qualitatively new manifestations of matter in motion.

6. The Self-Development of Matter

It is to be stressed that dialectical materialism conceives of the motion of matter as its self-development. The totality of

[1] Frederick Engels, *Dialectics of Nature,* p. 39.

INTERCONNECTION BETWEEN THE BASIC FORMS OF MOTION OF MATTER

'Motion, as applied to matter, *is change in general.*'

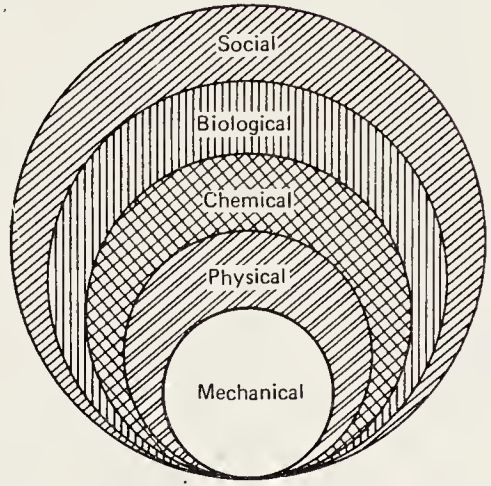
Engels

DIALECTICAL VIEW

One form of motion develops from another

Lower forms of motion are integrated into higher ones

The higher form of motion is a new quality, not merely a sum total of the lower forms



METAPHYSICAL VIEW

Higher forms are reduced to lower ones

No account is taken of the action of lower forms of motion within higher ones

'Organic life ... is not possible ... without mechanical, molecular, ... etc., changes. But the presence of these "subsidiary" forms does not exhaust the essence of the main form in each case.... For the organism is certainly *the higher unity which within itself unites mechanics, physics, and chemistry into a whole* where the trinity can no longer be separated.'

Engels

changes occurring in space and time does not merely exhibit a transformation of some phenomena into other, existing ones, but phenomenon of matter engendering new forms of its existence. The motion of matter engenders objects of a higher level and more complex structure, possessing new properties and regularities. The development of the world consists precisely in irreversible qualitative changes of material systems, involving things arising and passing away with progress and regress in qualitative changes. It is matter's capacity for self-development that conditions the emergence under definite conditions of the culmination of its perfection, i. e., the thinking mind in which matter apprehends itself.

Attempts to classify the variety of existing changes have been made since time immemorial. The Greek philosopher Aristotle (384-322 B.C.), for example, differentiated between six kinds of motion: emergence, destruction, change in quality, increase, decrease and displacement. Kanāda (3rd century B.C.), founder of the Vaishesika philosophy, subdivided all changes in the world into juncture and disjuncture. The English materialist Francis Bacon (1561-1626) named 19 kinds of motion: oscillation, inertia, excitation, antipathy, etc. The eighteenth-century metaphysical philosophers conceived of motion as the displacement of bodies in space, singling out different kinds of mechanical motion: rectilinear, oscillating, rotary, etc. None of the pre-Marxian philosophers, however, could formulate a scientific principle for the classification of forms of motion. This was only made possible with the emergence of the dialectical view on the motion of matter.

The motion of matter does not exist as an integral and unidirectional 'flow of change', but as a variety of its discrete forms substantially differing from one another. This variety is ordered, rather than chaotic, and is marked by such relations as simple and complex, genetically preceding and consequent, the interaction of lower and higher, basic and derivative, primary and secondary. Thus, matter in motion is not a simple juxtaposition of separate types of motion, but their coherent system. As applied to matter as a whole its self-development should be understood as a transition of some forms of motion into qualitatively different ones.

7. Basic Forms of Motion

Frederick Engels was the first to develop a doctrine on the existence of qualitatively different forms of motion in his *Dialectics of Nature* and *Anti-Dühring,* which provide a concrete description of the infinite variety of changes in the world. 'Motion in cosmic space,' he wrote, 'mechanical motion of smaller masses on the various celestial bodies, the vibration of molecules as heat or as electrical or magnetic currents, chemical disintegration and combination, organic life—at each given moment each individual atom of matter in the world is in one or other of these forms of motion, or in several forms at once.'[1]

According to Engels it is necessary to distinguish the following basic forms of motion: mechanical, physical, chemical, biological and social. Engels's conception of the basic forms of the motion of matter can be summarised as follows: a) each form derives from a definite material source (macrobody, molecule, organism, etc.); b) all forms are qualitatively different and are not reducible to one another (it would be a mistake, for instance, to explain biological processes using laws of mechanics, as did the metaphysical materialists); c) some forms may transform into others under the appropriate conditions; d) the basic forms of motion differ in their degree of complexity, some of them being lower and other higher, the latter arising as the synthesis of the former and representing a new quality with their own natural laws; e) classification of the forms of motion serves as the basis for the classification of sciences (mechanics studies the laws of mechanical motion, physics the laws of physical motion, etc.).

The teaching on the basic forms of motion is an important component in the dialectico-materialist philosophy. It enables us to understand the world as the unity of genetically interconnected but qualitatively different stages of development: inorganic nature, life and society. The development of 20th-century science has fully confirmed the conception of the basic forms of motion and further enriched and reinforced it.

---

[1] Frederick Engels, *Anti-Dühring,* Progress Publishers, Moscow, 1978, pp. 77-78.

As science develops it discovers ever new forms of the motion of matter which cannot be ordered in a simple sequence or series. Rather it is a multidirectional series which is based on physical forms of motion, the most fundamental of all, because they do not need any other forms for their existence. Other forms of motion do not exist 'in themselves' but arise on the basis of some type of physical interaction. The physical forms of motion include: intraatomic processes and mutual transformations of elementary particles; the forms of motion of macroscopic bodies (heat, crystallisation, changes of aggregate states, sound, various displacements in liquids and gases); mechanical motion as a spatial translation of macrobodies; cosmic processes accompanying the formation of galaxies, quasars, pulsars and other astrophysical objects. All physical forms of the motion of matter are characterised by four fundamental types of interaction between the elements of objective reality: (a) weak, conditioned by the radiation and absorption of neutrinos—elementary particles with a tremendous permeating capacity; (b) strong, expressing the interaction of intranuclear particles; (c) electromagnetic, representing various interactions between bodies through electric and magnetic fields and determining most of the properties of material objects, such as solidity, colour, chemical activity, etc.; and (d) gravitational, representing the process of interaction of all known bodies via gravitational fields and playing a determining role in the formation of all cosmic objects.

A more complex form of the motion of matter is represented by the sum total of chemical processes based on physical interactions. Chemical motion is the interatomic interaction and motion of atoms and molecules. It embraces the processes accompanying the change and conversion of molecules, ions and radicals. Chemical interactions are specifically expressed in covalent, hydrogen, ionic and other kinds of chemical connection. Chemical motion itself exhibits the emergence of more complex processes comprising it and of higher forms of matter in motion. This is expressed in the bifurcation of chemical processes into inorganic and organic. As distinct from the former process, the material vehicles of which are the atoms of the relevant elements, the substratum of organic processes is formed by a chemical compound, hydrocarbon. The qualitative change in hydrocarbon and

its derivatives brought about the emergence of life on Earth some three thousand million years ago. Life is a higher form of the motion of matter than chemical processes. It is a biological motion. What are its specific features?

As modern science sees it, all living creatures tend to preserve their stability if there is a continuous inflow of substance, energy and information (i.e., given a continuous metabolism with the outside world). Living organisms also possess an inherent capacity to regulate themselves and to maintain a constant composition and constant properties, as well as to reproduce. Biosystems also have a specific chemical composition, comprising nucleic acids which alongside proteins play a great part in the life process.

Matter's inherent self-development became more dynamic with the emergence of life. The landmarks in the evolution of fauna and flora are: primitive precellular forms of life; the formation of unicellular and then multicellular organisms; the emergence of organisms possessing an increasingly complex structure: invertebrates, vertebrates, mammals, and primates.[1] The evolution of life on Earth created the preconditions for the emergence of the highest form of the motion of matter, the social form.

The social form of the motion of matter is the life of society in all its varied relations with nature, the relations among people and their acts. These comprise the family, material production, productive forces and production relations, the class struggle, revolution, culture, religion, art, science, sport, etc. Society itself undergoes long history of development from the primitive-communal system through several class-antagonistic formations to socialism and communism.

It is at the social level that matter in motion engenders its specific property of consciousness.

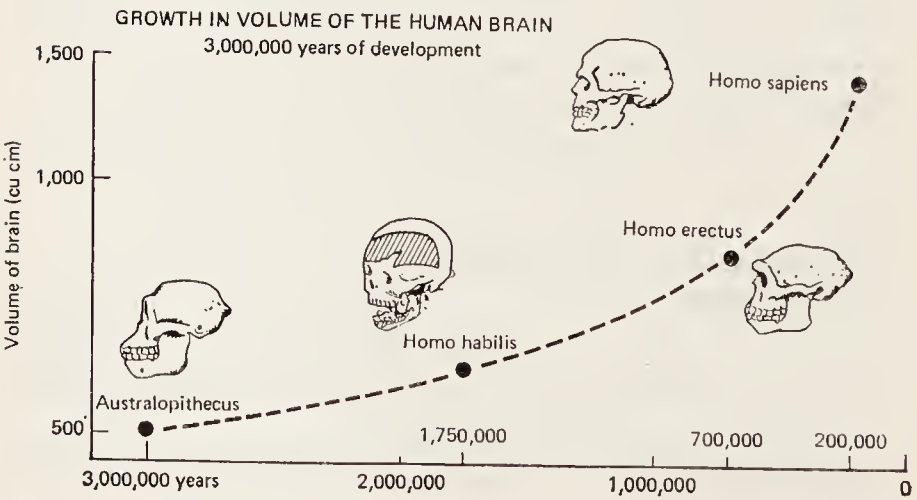
8. Consciousness as a Function of the Brain

Broadly speaking, consciousness is the sum total of the varied phenomena and processes of man's spiritual and intellectual life,

[1] Living creatures may exist in other regions of the Universe too, though science does not yet possess the data to confirm this.

such as thought, intuition, notions, sensations, emotions, convictions, religious beliefs, political ideas, knowledge, etc. A more narrow interpretation of this concept makes it possible to differentiate between the conscious and unconscious (or inapprehensible) processes in man's psyche, of which more later. Here we shall understand the term 'consciousness' in its broadest meaning. And it is this interpretation that makes it clear how diametrically opposite are the basic philosophical outlooks.

Idealists consider that consciousness as the prime element is opposite to matter and attribute supernatural properties to the spirit. They ascribe to consciousness (the Spirit, Idea, purusha, etc.) an ability to exist independently of matter, apart from any physical or biological processes. Moreover, they believe that consciousness or mind has an inherent ability to create the material world which they represent as the 'other being' of the Absolute Idea, 'the complex of the subject's sensations', etc. Consciousness, as something primary, infinite and absolute, is contrasted to material things which are deemed transient and finite, destructible and creatable. The idealists deny the possibility of applying scientific methods of investigation to spiritual phenomena and consider self-observation to be the only method of cognising them. The idealist view of consciousness includes the idea of the operation in man's organism of a special non-corporeal force, the



soul, which is allegedly the vehicle and cause of all his thoughts and feelings.

Materialist philosophers have always refuted such idealistic views of consciousness. According to the Chārvākas, for example, consciousness arose from the combination of the four primary elements: earth, air, water and fire. The soul was a body possessing consciousness and did not exist separately from the body. The Greek thinker Democritus said that the soul was formed from a special kind of atom. Materialists have always sought to explain spiritual processes with physical reasons and were opposed to the doctrine on the 'immortal soul' existing independently of the organism. At the same time, the then dominant mechanistic and metaphysical notions presented simplified views on the nature of consciousness. For instance, the Dutch philosopher Spinoza (1632-1677) interpreted consciousness (thought) as a universal property or attribute of matter, i.e., he in fact declared that all matter was animate. Such views are termed Hylozoism. Other philosophers treated the mind as a simple material secretion of the brain (just as liver secretes bile). Such vulgar materialist views of consciousness were expounded in the nineteenth century by Büchner, Vogt, Moleschott, and others. Neither Hylozoism nor vulgar materialism, however, could stand the test of science.

Dialectical materialism assumes that consciousness is a product of the historical development of matter. It is a property of matter in its highest, most organised form. The material substratum and organ of consciousness is the human brain. It is an exceedingly complex material formation that took shape in the course of anthropo- and socio-genesis and has an involved biological quality, structure and dynamic functioning. The human brain differs from the animal brain both in quantity and quality. The ratio of the brain's weight to that of the organism as a whole is known to have changed during evolution. The weight of the whale's brain is 1/1,000th of that of its body, the lion's brain 1/545th, the elephant's brain 1/500th, the ape's brain 1/150th, and the human brain, 1/46th. The human brain is thus more than three times as heavy as that of an ape. The development of the cerebral hemispheres and the increase in the number of furrows and convolutions in its structure are of crucial im-

portance in psychical functions becoming more complex. This is seen in a sharp increase in the number of nerve cells in the cerebral cortex, to nearly 15,000 million. Each of them is connected with 10,000 others, which enables the brain to perform four million impulses in one-thousandth of a second.

Functionally, the human brain represents a system consisting of three parts: (1) the so-called reticular formation (the subcortical layers), (2) the back (occipital, sincipital and temporal) sections of the cerebral cortex, and (3) the frontal sections of the brain (frontal lobes).

This structure, with possible individual differences, is common to all people. Science has proved that such assertions spread by bourgeois scholars as that there are allegedly inherent racial or national peculiarities in brain structure are untenable. There are no such peculiarities. The structure of the human brain enables it to exercise its functions. There is nothing supernatural from this angle in man's consciousness. It is a function of the brain to reflect the objective world. Consciousness is the psychic reproduction of an object in the human brain in the form of ideal images (sensations, representations, concepts, etc.).

Reality is reflected in the human brain when all its subsystems interact. The reticular formation serves to maintain a certain level of excitation at the cerebral cortex to enable it to take in information and regulate man's active behaviour. The reticular formation is itself regulated by the higher systems of the cortex. The back sections of the cortex exercise the functions of receiving, processing and storing the information which reaches man from the external (and partially internal) environment. They analyse and synthesise visual, tactile and auditory impulses received from the environment. The frontal sections of the brain consist primarily of the frontal lobes of the large cerebral hemispheres, the youngest and most complex sections of the cortex that distinguish man substantially in physiological terms from animals. They exercise the very important function of building complex programmes of man's actions, collating the results of completed actions with initial intentions and of controlling man's behaviour. Violation of the normal functioning of any section of the cerebral cortex leads to corresponding changes in the psyche. Thus, disturbance of the occipital and sincipital sections of the left cerebral hemisphere results, in

particular, in a loss of spatial orientation, and disturbance of the temporal sections results in the breakdown of fluent speech and the perception of music.

These and other facts confirm the materialist idea that the brain is the organ of thought, and consciousness is a function of the brain, the highest product of specially organised matter. The explanation of mental processes as conditioned by the functioning of the material substratum is an important manifestation of the intrinsic unity of the world.

9. The Unity of the World

Thus the unity of the world lies in its materiality. In general terms this means that: a) the world is objective reality existing independently of man's consciousness and is reflected by it, and is hence in its very essence knowable; b) the world is a law-governed motion of matter in space and time; c) the world is the process by which matter develops itself, giving rise to more complex forms of its existence and to motion possessing qualitatively new properties.

The development and achievement of the natural sciences and the extension of materialism to the study of human history, have made it possible to pinpoint specific forms in which world unity manifests itself. In the past the world was metaphysically broken down into isolated aspects or parts, which gave fuel to the religious-idealistic ideas on the existence of a Creator; substances and forces were considered opposite in the inorganic world (hermogen, phlogiston, etc.), and animate nature with its allegedly inherent vital force *(fortus vitae)* was considered opposite to 'dead' nature, the animal kingdom (fauna) was opposed to the vegetable kingdom (flora), psychic phenomena in fan were opposed to corporeal phenomena, and society was opposed to nature. Today, however, science has established unity in the numerous differences between material objects.

The unity of the world is expressed (a) in the common properties and composition of varied objects (electron as a common component of all atoms, similar chemical elements found on Earth and in space, the cell as a structural unit of vegetable and animal organisms, etc.); (b) in the mutual transformation of some material

formations and states into others (the mutual transformations of elementary particles, of substance and light, and chemical substances); (c) in common origin and genetic links (the determinacy of living phenomena by biochemical processes, and the emergence of human society); and (d) in general laws (the law of the conservation and transformation of energy in nature, the law of the determining role of material production in society), etc. The conception of the world as matter moving according to certain laws is a basic principle of dialectical materialism. This teaching alone can give a clue to the essence of consciousness.

Chapter IV
THE SOCIAL ESSENCE OF CONSCIOUSNESS

Consciousness, as a product of historical development, is a property of specially organised matter, the human brain, rather than of all matter. Consciousness is thus secondary in its origins since it depends on the appearance of the higher forms of motion. It is also secondary in its essence since it reflects reality through the human brain and thus presupposes the existence of the original, being its ideal 'copy' or 'photography'. The reproduction of reality in man's mind is a very complex process and 'photography' gives, of course, an approximate image of reality. This, however, definitely expresses the main point, viz., that consciousness is a specific reflection of matter. A host of absurdities are ascribed to Marxists on the grounds that they treat consciousness as a process of reflection. Opponents of dialectical materialism label the theory of reflection a 'mechanistic' one, alleging that it ignores the creative role of consciousness and the significance of man's spiritual values, etc. All this, of course, grossly distorts the essence of the matter. This will become clear after a familiarisation with what is meant by reflection in scientific philosophy.

1. Forms of Reflection in Nature

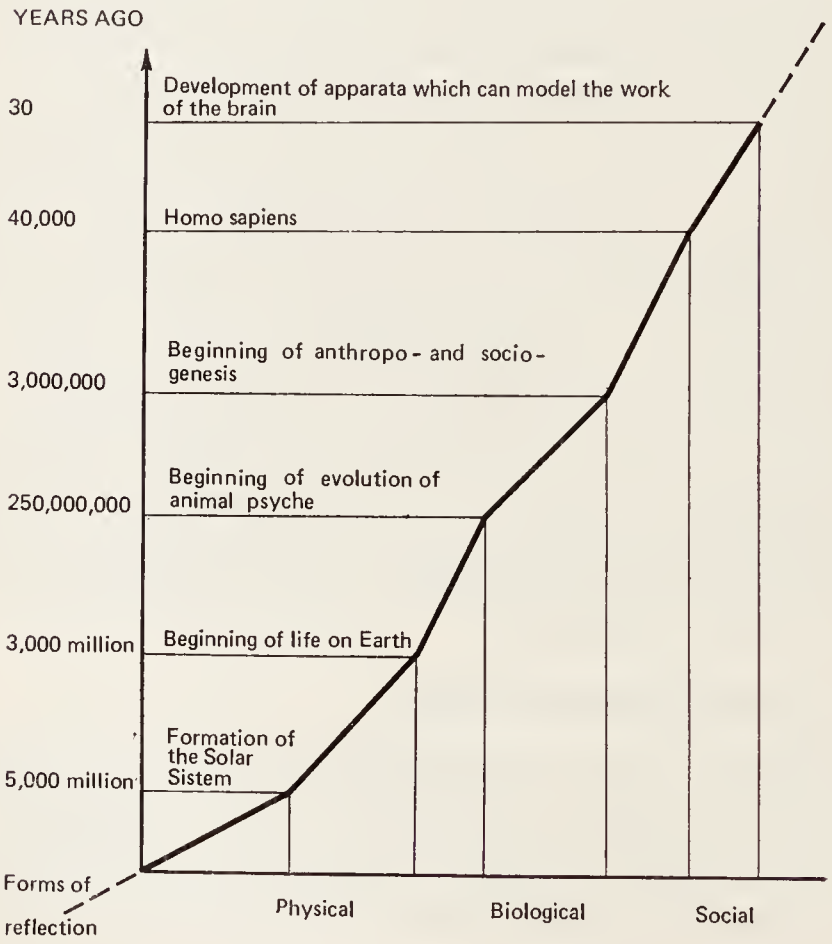
Reflection belongs to the general attributes of matter, consciousness being a special, higher form of reflection. Consciousness could not have arisen without the right conditions present in objective reality; these include the property of reflection as well as matter's capacity for self-development and the generation of ever

new and higher forms. The property of reflection evolves as matter in motion becomes more complex in quality.

Reflection is manifested in the inorganic world as the capacity of bodies to change their internal states when affected by other bodies. The mechanical deformation of a body as a result of a blow, a conductor getting hot as a result of an electric current passing through it, the refraction of a light ray when it passes from one environment into another, e.g., from air into water—these are some of the simplest manifestations of physical reflection.

With the emergence of life, however, reflection acquired new

BASIC STAGES IN THE EVOLUTION OF FORMS OF REFLECTION



features: it became selective. For organisms, reflection is connected with information received, i.e., with the reflection of various actions or effects on it. This is crucial for regulating the relations between organisms and the environment. An elementary form of biological reflection peculiar to all living matter is irritability as the organism's more or less definite reaction to external influences of short duration. Such, for example, are tropism and nastia (plants grow towards the light, flowers close in darkness or cold, etc.).

Irritability and also sensibility inherent in animals are purely physiological processes; the further development of the animal world, however, brings about a new form of biological reflection—psychic reflection. The emergence of the psyche is linked with the appearance of insects some 250 million years ago. The psyche of animals became ever more complex with their further development.

The material apparatus and vehicle of all forms of psychic reflection is the nervous system, which attains its highest stage of development in animals who have an intricately organised cortex of large cerebral hemispheres. Science has made great advances in its studies of the psyche. A very great contribution to the study of the laws governing the higher nervous activity of animals and man was made by the Russian scientists I. M. Sechenov (1829-1905) and I. P. Pavlov (1849-1936).

Sechenov was the first to initiate objective investigation into the nervous and psychical apparatus. Earlier it had been believed that the brain work was not governed by the laws of the material world and that thought and 'spirit' could not be studied by objective methods. Mental activity was viewed as a manifestation of the soul inserted into living creatures by God. Religion and idealist philosophy were intent on propagating such views. Sechenov's merit lay in explaining the higher animals' most complex behaviour through material factors. He proved that the psychic activity and behaviour of both animals and men is made up of reflexes reacting to stimuli received from the environment.

Pavlov further developed the scientific doctrine of higher nervous activity. He revealed the specifics of reflexes exclusive to man whose consciousness, unlike the psyche of animals, is formed in social life and collective labour. He also discov-

ered the basic laws underlying the activity of the animal and human brain.

Later on, the science of man's higher nervous activity was enriched with new facts and discoveries. Today, physiologists use the most up-to-date methods in studying the work of the brain, relying on the latest findings in physics, chemistry, electronics and other sciences. Modern scientific data confirm the materialist doctrine on the essence of consciousness and its qualitative distinction from the animal psyche.

2. Animal Psyche

The relationship between animals and the environment and all their behavioural acts are based on reflexes, i.e., the organism's responses, carried through the central nervous system, to stimuli. The reflexes can be conditioned or unconditioned—that is to say inborn—some examples are: the sexual instinct, the instinct to preserve one's progeny, the instinct for geographic orientation in migrating birds, etc. Let us take building instinct of bees as an example. Bees build rectilinear hexahedral cells out of wax with great mathematical precision. The acute angles of the three rhombuses that form the base of each hexahedron are exactly 70°32′. This size has been worked out over evolution, prompted by the bees' urge to make the greatest possible use of their building material. If the angle was any other size more wax would be required to build a cell of the same volume.

Unlike unconditioned reflexes, which are, we repeat, responses to the influence of the environment, inherited by the organism, conditioned reflexes are responses acquired by the organism during its life. Unconditioned reflexes do not have the capacity to let the animal to adapt, quickly and precisely, to changing external conditions, while conditioned reflexes do. They are formed on the basis of unconditioned reflexes, through the formation of temporary links in the higher department of the central nervous system. If, for example, we feed a dog several times, switching a lamp on before each feeding session, a conditioned reflex will appear in the dog after several sessions. As soon as the lamp is turned on the animal will react by salivating, which means that

the dog has made a temporal connection between the light of the lamp and food.

Conditioned reflexes play an important role in the lives of animals because they cause the organism to react to them prior to the action of unconditioned stimuli themselves (food, danger, etc.). A conditioned stimulus (light, smell, sound, etc.) signals, as it were, the presence of phenomena that are important for the animal. A system of conditioned reflexes fulfilling the function of warning is therefore termed the 'first signal system'. It is common to both animals and man.

In the higher animals the conditioned reflex system is combined with an ability to analyse complexes of images that reflect not only objects and phenomena but also the comparatively complex relations between them. This is what forms the psychic reflection of animals in its most developed form, i.e., concrete or sensory 'thought'. It is seen especially clearly in the behaviour of anthropoid apes. The following experiment was carried out on an anthropoid ape. Fairly high up in a cage was hung some fruit. To enter it, a fire had to be extinguished. For this purpose a barrel with water was placed nearby. After a series of unsuccessful attempts to get the fruit the ape abandoned haphazard action and started to behave consistently: it scooped some water from the barrel with a mug and extinguished the fire; then it entered the cage, made a long stick out of two short ones and with it managed to reach the suspended fruit. An association of representations was thus included in its conditioned reflex system. The ape was capable of correlating the properties of various objects in a specific situation on the basis of the reflexes developed in it.

In another experiment the same ape was placed on a raft which also supported a barrel of water and a mug. There was a second raft nearby on which there stood a cage with bananas suspended inside. As in the previous experiment the fire had to be extinguished before entry was possible. What did the animal do? It reached the other raft along the plank spanning the two; failing to get to the food it came back, took some water from the barrel and hurried to the cage again, pouring the water over the fire. It performed this operation several times. It felt hot and cooled itself with water taken from the pond. But it again turned to the barrel to pour more water over the fire. Thus it seemed

to the ape that only the water in the barrel would extinguish the fire. We can see, then, that its notions about the properties of things are scattered, and tailored to a given situation, and its 'thinking' is elementary and concrete-sensuous.

All that we have said prompts the conclusion that consciousness is not a 'divine gift' or something supernatural, as adepts of religion and idealism would have us believe, and there is nothing miraculous about its origin. It is a logical product of self-developing matter and its immediate pre-conditions lie in the formation of a relatively high level of psychic reflection in animals. Yet, while pinpointing the genetic connection between human consciousness and animal psyche we must at the same time stress that the emergence of man and human society is a very great leap forward in the development of nature and a profound qualitative change in the form of reflection.

3. Man: Conceptual Thinking

Man emerged from the animal world thanks to labour. Animals passively adapt themselves to the environment, while men actively influence it with the aid of specially made tools. Human society took many hundreds of thousands of years to emerge. An important landmark in the transition from anthropoid ape to man was the transfer to an upright stature, which enabled them to free their forelimbs and gradually to improve them in labour activity. Initially, this activity was instinctive and primitive in character. Even apes, as we know, can sometimes use sticks as 'tools'. A specific feature of human labour is the use of man-made tools, not simply of natural objects. When primitive man mastered the force of fire he could make better instruments of labour more quickly and could process various natural substances and materials.

The gradually growing sophistication of man's action in making instruments of labour and in their use led to changes in the human organism as a whole. Man's hand acquired a degree of perfection and was able to perform various complex manipulations in labour. All the organs of the human body are interconnected. The development of the hand could not but influence the

development of the brain, and perfect the functioning of the large cerebral hemispheres, the brain being the organ that analyses signals coming from the organs of motion, above all from the hands. The inflow of the most varied stimuli to the brain grew immensely as man started processing various natural substances and objects. His sense organs, which were also developing in the course of his labour activity became qualitatively distinct from those of animals. The eagle, for instance, can see much further than man, but the human eye perceives much more in things than does the eye of an eagle.

From the outset labour was social in character. The hard conditions of primitive men's existence forced them to act together, collectively rather than individually. Joint labour called for the coordinated action of many people. Social relations took shape among people on the basis of their joint labour. All this gave rise to the primitive man's requirement and need to communicate with other people and form a means of intercourse. Language, coherent speech was gradually evolving in collective labour and life in primitive society as a means whereby man could express his inner state, his desires, thoughts and feelings.

The formation of language signified the emergence of a form of reflection that differed in quality from that of the animal psyche, viz., social reflection, conceptual thinking. Animals, as has been said, have an intrinsic system of conditioned reflexes—the first signalling system. In man this system is super-imposed by the second signalling system—speech. The words (various names or labels of objects and their properties) perform a signalling function in man. They substitute, as it were, specific sensual stimuli which in their turn act as signals of unconditioned stimuli. Speech is therefore a kind of signal of signals or, as it is called, a second signalling system. It is a product of man's adaptation to the social environment. An essential feature of a word as a real stimulus is that it always represents a generalisation. We say 'a house', for example, and abstract from this concrete, sensorily perceived features of individual buildings (a hut or a palace, a wooden or brick house, etc.). Only men have an ability for abstract thought. Animals do not have this ability, as was shown in the example with the ape. Thinking in abstractions, or concepts, enables man to delve deep into the essence of phenomena and to reveal law-

governed connections between things and events. On the basis of their social labour activity, people can also accumulate and transmit their experience and knowledge with the aid of speech (both oral and written). Human consciousness is thus constantly developing, improving and deepening.

Work, society and language are the three aspects of the single social factor that causes consciousness to develop. Consciousness is namely the product of society and is at the same time a distinctive feature of it. Taken in isolation, the brain is just a clot of intricately organised matter, while the thinking brain is in essence a social phenomenon. The press sometimes publishes reports of children raised by animals, e.g. monkeys or wolves. Of more than 30 such cases let us recall the story of two girls, nursed by a she-wolf and found in October 1920 in the jungles of Eastern India. The older girl, Kamala, was some five or six years old, the younger, Amala, about three. Their behaviour had no human element in it: they moved on their hands and knees, they were awake and moved about at night, and sometimes howled; they could not speak and did not understand anything. All attempts to integrate them into society failed. Amala soon died, and Kamala knew a mere 30 words or so at the age of eleven. Isolation from people had a disastrous effect on their mentality, which was that of animals rather than that of men.

A child becomes a grown-up as it assimilates the experience of past generations and acquires all kinds of human action during its life among people. Together with these actions it also acquires characteristics of the mind and the mental abilities necessary for the performance of these actions. This is especially evident in the case of deaf-blind children who lack the main channels of communication with the outside world. Their psyche is reduced to feeling their elementary organic needs and the experience of simple pleasure or dissatisfaction in fulfilling them. Yet in communicating with grown-ups who give them special training they acquire all the qualities of normal people. The Soviet Union has a special school for blind and deaf-blind children which gives them an education and a speciality or trade. Four former pupils from this school have graduated from the psychology department of Moscow University.

4. Goal-Positing and Self-Consciousness

Life in society determines the specific qualities of human consciousness. Alongside the men's afore-mentioned ability to think in concepts, their object-transforming practical activity is also marked by purposefulness or goal-positing. The latter is a most important feature of human consciousness. We have already referred to the bees' wonderful ability to build wax cells. Yet this is a manifestation of blind instinct. If we cut off the bottom of a cell, for example, a bee will ignore it and will pour honey into the cell as before. '... A bee puts to shame many an architect in the construction of her cells,' wrote Marx. 'But what distinguishes the worst architect from the best of bees is this, that the architect raises his structure in imagination before he erects it in reality. At the end of every labour-process, we get a result that already existed in the imagination of the labourer at its commencement. He not only effects a change of form in the material on which he works, but he also realises a purpose of his own that gives the law to his modus operandi, and to which he must subordinate his will.'[1]

A goal is an image of the desired future, the contemplated final result of man's actions. It appears as a manifestation of men's ability to have a sort of 'anticipatory' reflection of reality, to forestall the future through their knowledge of the relevant properties of things and the trends in their development. At the same time, the goal determines the method of changing a thing in practice and programmes the action itself, requiring for its realisation the use of certain means. Aim or purpose as a fact of consciousness is naturally an expression of men's material requirements and interests. The great aims of liberating mankind from poverty and hunger, war and disease, social and national oppression have at all times inspired the progressive social forces to fight for the transformation of society.

The highest expression of consciousness in man, as a member of society, is self-consciousness. It is consciousness directed towards himself, man's realisation of his own practical and spiritual activity, his interpretation of his own acts and of his relations with other people. Man's self-consciousness forms in the process of his

[1] Karl Marx, *Capital,* Vol. I, p. 174.

asserting himself as a personality. A child does not perceive itself. It does not identify itself as a particular 'Ego' and does not consider itself distinct from the outside world. Realising oneself results from varied activity and communication with other people. It is expressed in man's self-control, self-perfection and self-criticism. The highest expression of self-consciousness is the individual's consciousness of himself as a member of a collective, his understanding of his role in society and the consequent subordination of his actions to the social aims of progressive forces. The deepest expression of man's self-consciousness is his collective spirit as expressed in active participation in the class struggle and in the life of society. Therefore, the afore-mentioned ancient motto 'Know thyself' requires a new interpretation today. Man's capacity for self-consciousness can also lead to socially negative results as happens, for instance, when he directs himself towards 'self-contemplation' and 'self-concentration' in a religious framework, towards a disregard for real life and escape into himself and 'self-education', as allegedly the principal ways to attain personal happiness. Jawaharlal Nehru justly pointed out the need to overcome such principles of religious consciousness. 'We have to get rid of that narrowing religious outlook, that obsession with the supernatural and metaphysical speculations, that loosening of the mind's discipline in religious ceremonial and mystical emotionalism, which come in the way of our understanding ourselves and the world. We have to come to grips with the present, this life, this world, this nature which surrounds us in its infinite variety.'[1]

Man's capacity for self-consciousness must therefore be considered distinct from his other qualities as a social being.

5. Consciousness and Language

The social nature of consciousness is also expressed in its unity with language. This unity results from the fact that language is the immediate reality of human consciousness. Language is as ancient as consciousness. It is consciousness in a practical, actual form existing for other people and by virtue of this also existing for a given person. Language is a material manifestation of

[1] Nehru, *The Discovery of India,* p. 553.

human thought. Man may express his ideas by different means (gestures, drawings, formulas, etc.); ultimately, however, human intercourse is based on verbal language. Today, there are more than 3,000 natural languages in the world, of which India accounts for 872. Any natural language provides a universal means to express one's thoughts. Language performs many functions: it serves as a means for the abstracting work of thought; it designates things and phenomena, i.e., labels the objects that surround us; expresses man's feelings as well as thoughts, being a major means of human communication; it also serves as a method of consolidating acquired knowledge and passing it on to succeeding generations; acts as a means and indicator of the development of man's intellect and culture, etc. Language improves in step with the development of mankind, with its material and spiritual culture.

There is a distinction between language and speech. The former is a definite system of the means of communication while speech is the activity brought about by this system. Speech may be oral, written or 'internal', but in all cases it is realised through words. Consciousness does not exist outside speech, but the unity of thought and language does not rule out some differences between them. Consciousness reflects reality while language expresses the result of this reflection. The basic function of consciousness is thus cognition of reality, and that of language—communication and mutual understanding between people. Another difference is that the same ideas are expressed by different combinations of sounds in different languages. It is also important to note that thought is panhuman in its laws and forms and is subordinate to the common laws of logic, while language is a national, ethnic product in vocabulary and grammar.

6. The Structure of Individual Consciousness

Consciousness reproduces reality in ideal images and in different forms, all of which are related to subjective reality as experienced by man. Man's complex inner world is comprised of live emotional responses, sharply differentiated cognitive processes, and specific behavioural acts which express the individual's, the subject's relation to the surrounding world.

The ideal forms in which man reflects reality are above all differentiated into sensations, perceptions, representations, thought, emotions and feelings, and will. Visual, auditory, olfactory and other sensations are mental phenomena directly connected with reality and reflecting the separate prorerties of objects. The capacity to feel is a property of both animal and human organisms, yet in man, as opposed to animals, this capacity is mediated by his practical activity. It is thus inseparable from man's perceptions, which integrate the various sensations into a complete image of an object. When perceiving, man becomes aware of his sensations. If he knows a foreign language, for example, a native speaker's words will mean something more to him than just a sum total of auditory impressions: he will perceive the ideas contained in them. Representations play an important role in man's subjective world. They determine the human ability to preserve the sensuous images of things, perceived earlier, to produce relatively arbitrary combinations of these images, and to form images of future or invented reality using imagination and fantasy. The fantasy of ancient people, for instance, gave rise to such imaginary creatures as assuras (gigantic snake-like monsters), rakshasas (giant cannibals), centaurs (creatures half horse and half man), mermaids (half fish and half maiden), Harpies (woman-faced birds), etc.

Abstract thinking, the reproduction of reality in concepts, is, as we have noted, a type of reflection specific to man. It is a mediated and generalised reflection by man of the essential properties of, and relations between, things. Thought processes are realised in concepts as judgements and inferences according to definite laws of logic. Conceptual thinking represents the unity of two forms, rational thinking (reason) and intelligible thinking (intellect). Reason implies definiteness of thought, the manipulation of already established concepts, while the intellect is man's ability to reveal the contradictions within concepts and their limitations, and to correlate the content of such concepts with a concrete, objective situation. In everyday life reason is called common sense, and intellect—wisdom.

All the forms of consciousness we have described primarily characterise one particular aspect of man's reflection of reality—acquisition and use of knowledge. Emotions and feelings express

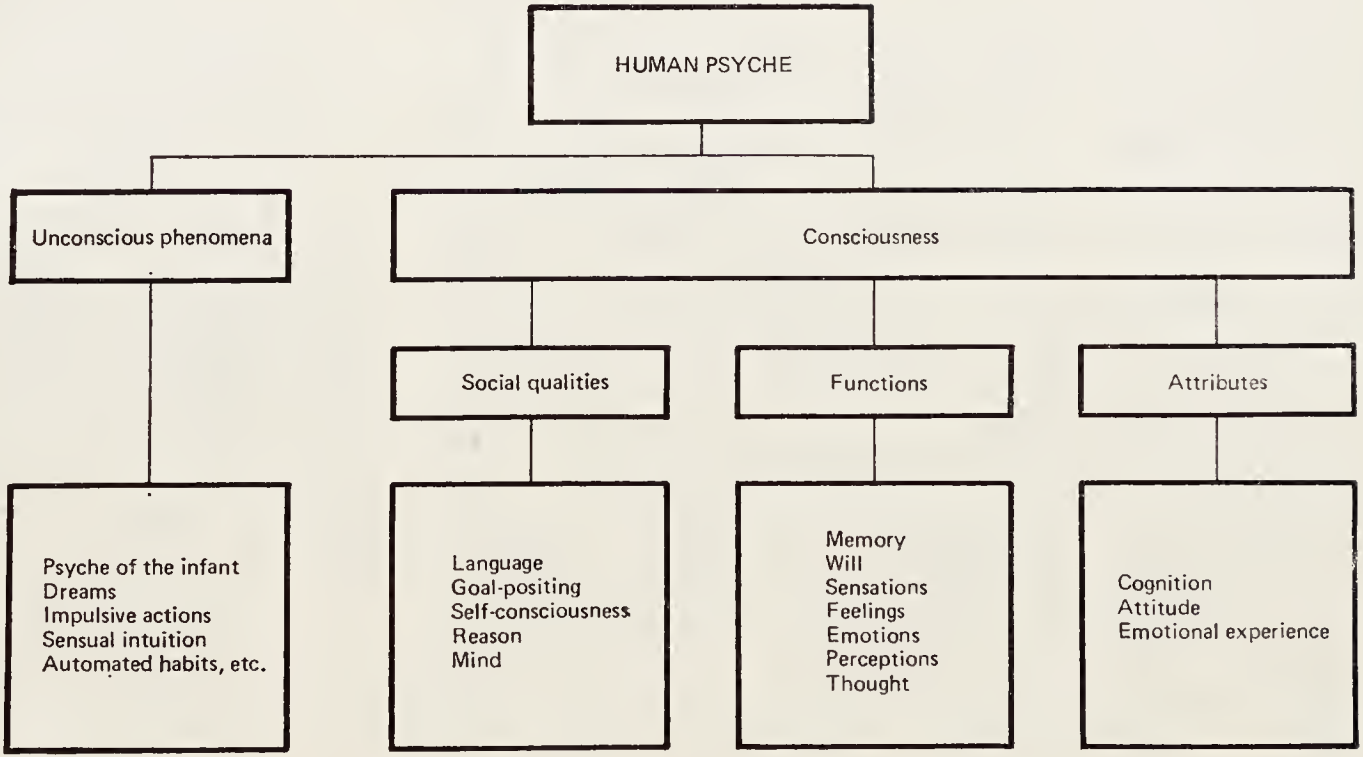
the other aspect of this, i.e., the individual's emotional attitude to the reality he reflects. Strong emotions accompany the ordinary consciousness of people in their everyday life, the scientific quest for truth, the work of an artist, the performance of religious rituals and the political struggle of classes. Emotions include pleasure and displeasure, joy and malice, delight and indignation. The sphere of emotions also includes those connected with man's relation to society: the sense of duty, the sense of justice, the aesthetic sense, etc.

Will is a form of psychic reflection peculiar to man. It is the ability of consciousness to direct man's behaviour. It determines the individual's purposeful action. Yogis, for example, undoubtedly possess great will-power. They do special exercises (measured-out starvation, muscular relaxation, slowed-down breathing) to acquire the ability to control some of their life processes. In some cases their experience may prove valuable for modern medicine. At the same time, while discussing the problem of will we should point to the great importance of the motives behind particular volitional acts, as well as, of course, the very content of man's purposeful action. A genuinely strong will manifesting man's self-consciousness at its highest level is expressed in his concentrated effort to promote society's progress in collective action. The direction of a volitional act, which may also be reactionary or anti-social, is determined in the final analysis by the individual's ideological views, morals, traditions, etc. Here we abandon the sphere of individual consciousness and pass to social consciousness.

7. Individual and Social Consciousness

Each person is a member of a historically distinct society, class, nation or estate—in India, moreover, he is a member of some varna or caste, a century-old institution. The social essence of the individual's consciousness is therefore expressed not only in the emergence of fundamentally new forms of the ideal reflection of reality (such as conceptual thinking, self-consciousness, purposeful goal-positing, will, etc.) but, most importantly, in the content of the reflection itself and in man's attitude to social phenomena and events and to reality as a whole. Consciousness is not only

STRUCTURE OF INDIVIDUAL CONSCIOUSNESS

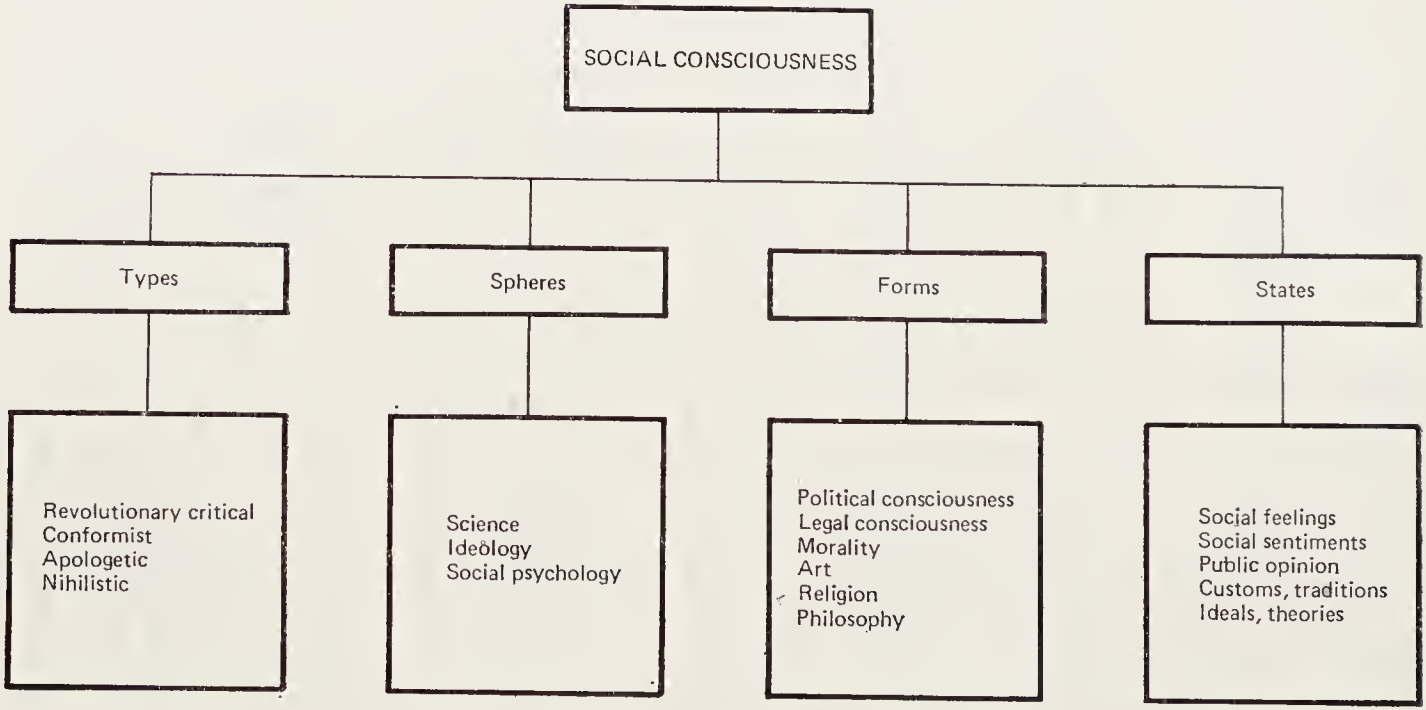


a function of the brain which reflects the outside world. It also presupposes interaction between people and the existence of society. Man's social activity plays a determining role in the development of his consciousness, while the character and form of this activity stems from man's social being. Social being comprises the economic relations which form in the production of material wealth. Where there are exploiters and exploited social being differs.

Social being determines social consciousness. Since the social being of different classes differs, their members reflect social reality in different ways. The bourgeois consciousness, for instance, perceives capitalist relations, based on the exploitation of man by man, as natural and the only possible relations for society. The exploited classes conceive of social being in quite a different way. To the proletarian consciousness, the capitalist order is synonymous with the suppression and destruction of the personality and appears as something that has outlived itself in history and has to be replaced in a revolutionary way. The capitalist reality is uniquely reflected in peasants' consciousness. The peasants as a class occupy a contradictory position in social relations. On the one hand, they are connected with private, albeit small, property, while on the other, the peasants—primarily the poorer ones—bear the brunt of capitalist exploitation. The peasant's contradictory position affects his social consciousness which is often inconsistent and irresolute and vacillates between proletarian and bourgeois standpoints, between revolutionary spirit and passivity.

To sum up, social consciousness is the totality of views, ideas and social feelings of a particular class that reflect its social being. The consciousness of the society in which man lives influences his spiritual world. At the same time there are important distinctions between individual and social consciousness. Individual, like social consciousness, is socially conditioned, but it reflects individual as well as social being. The consciousness of a particular individual and that of the class to which he belongs may therefore be at odds with each other. For instance, communalist and caste views that are alien to a proletarian consciousness persist for a comparatively long time among some workers with peasant background. Furthermore, not every worker has a feeling of class solidarity. On the other hand, some members of

STRUCTURE OF SOCIAL CONSCIOUSNESS



wealthy social strata (the intelligentsia and middle class) may adopt the position of the working class and help mould its ideology.

There are other differences between individual and social consciousness as well. Thus individual consciousness, as a mental process, appears, develops and dies together with a person. It is therefore limited in time and scale. Social consciousness, on the other hand, is embodied in culture (language, works of art, etc.) and in traditions, and is inherited by each new generation from the preceding one, its content being correspondingly enriched by each new generation.

A further difference is that, as we have already mentioned above, individual consciousness is correlated not only with individual and social being, but also with objectively existing social consciousness (the dominant forms of political ideology, religion, morals, etc.), while social consciousness is only correlated with the material side of life in society as it reflects it.

Finally, social consciousness can be fairly distinctly differentiated into such forms as morality, religion, political consciousness, art, philosophy, etc., while individual consciousness lacks such differentiation.

8. Social Psychology and Ideology

According to the functions it fulfils, social consciousness can be divided into science, social psychology and ideology. Science, which fulfils the cognitive function, is a system of theoretically grounded doctrines on natural and social phenomena and their laws (the natural and social sciences). These are doctrines that adequately reflect reality. Social psychology is a varied and dynamic totality of people's feelings, thoughts, moods and opinions that arise spontaneously as a reflection of their social being. Social psychology also includes the relatively stable phenomena of mass consciousness, such as national customs, traditions and national character. Social psychology may on the whole be represented as the people's emotional and empirical experience of social events and of their attitude towards them. A corresponding state of social mentality (the mood of the people, public opinion, social feelings, etc.) is indispensable for any social action. Differ-

ent classes and social groups have their own social and psychological features. The emergence of the capitalist relations of production and the further development of capitalism moulded such features of bourgeois psychology as covetousness, selfishness, enterprise and thrift, greediness, merciless cruelty, nationalism, falsity, individualism, hypocrisy, etc. The class psychology of the proletariat, on the other hand, is unique for such qualities as solidarity, internationalism, comradely spirit, respect for human dignity, collectivism, organisation and discipline, class hatred for the exploiters, heroism and self-sacrifice, etc. An important position is held in social psychology by the feelings of national dignity and patriotism that form in the history of every people.

Unlike social psychology, ideology is the sphere of theoretical consciousness. Ideology serves to express social consciousness, sharply accentuating its class essence. Ideology does not arise spontaneously but derives from a theoretical understanding of the social being of a particular class undertaken by its special representatives—ideologists. Ideologists, as we have noted above, may also be members of other classes who realise that the existing system is doomed historically and come over to the position of the advanced social forces. Ideology functions as a system of philosophical, political, religious and other views, its determining elements being ideas that express the basic interests of a class, its basic spiritual values, general outlook on the world, and its programme of social action (class aims, ideals and slogans). For instance, in recent years some Eastern countries have been active in advancing Islamic slogans. The Communists respect the religious convictions of people professing Islam or any other religion. The main thing, however, is what aims are pursued by the forces proclaiming various slogans. Religious slogans may inspire liberatory struggle, but history bears evidence that reactionary forces, too, use religious slogans, in particular Islamic ones, to their advantage. Hence, in assessing religious ideas one should proceed from the actual content of any particular movement. Depending on the social force whose consciousness the ideology expresses it may be proletarian (socialist), bourgeois, imperialist, petty-bourgeois, peasant, feudal and so on.

A special point should be made about the relation between ideology and science. References are often made to their alleged

incompatibility, that of class interest and non-class truth, but in this case the differences in the content of socialist and bourgeois ideologies are being deliberately concealed. If we take the ideology of the working class, whose interests correspond to the objective regularities and trends of social progress, it is deeply scientific. The working-class ideology is the Marxist-Leninist teaching, the truth of which has been fully corroborated by the course of modern history.

The socio-psychological and ideological components of social consciousness influence the individual's subjective world. Individual consciousness therefore appears as a multidimensional phenomenon comprising—alongside the qualities of thinking, will, emotions, etc. common to all people—elements of social consciousness in the form of class convictions, social ideals, moral norms, religious beliefs, world outlook ideas, etc. Man's consciousness, unlike the animal's psyche, cannot therefore be correctly understood by looking only at its universal human structure. It is also essential to define the peculiarities of the consciousness of man as a member of a certain society and class. For instance, the consciousness of the bourgeoisie and the proletariat differs in their interests, world outlook, ideological convictions, values and political views rather than in their knowledge, logic of thinking, or perceptions.

9. The Unconscious Element in Man's Psyche

The above clarification of the differences between individual and social consciousness makes it possible to delimit the concepts 'consciousness' and 'psyche'. Not all the human psyche is conscious. It also includes phenomena that do not pass through man's intellect and will, i.e., of which he is not aware. The subconscious, or unconscious sphere of man's psyche is comprised of his feelings and aspirations, of psychological motives, automatic habits and skills, and intuition, dreams and impulsive acts. None of these are controlled by thought at any given moment. These mental phenomena are important in man's life for they free his consciousness of constant strain when there is no need for it. However, their significance in man's spiritual life should not be overestimated, at is done, for instance, by irrationalists and Freu-

dians. The former belittle or deny the role of the intellect in cognising the world, treating cognition as a mystic illumination or unconscious intuition. As far back as the second century B. C. Patanjali, the founder of the Yoga philosophy, viewed the unconscious as the highest level of knowledge. He defined the basic purpose of his philosophy as 'limiting the activity of the mind'. The Yogi's highest, sublime and direct state, according to Patanjali, was that of containment when the mind did not concentrate on an object but was immersed in its own nature and became unconscious. The irrationalist stand is adopted by many philosophers today, in particular by existentialists, Nietzscheans, etc.

The Freudian theory and method of psycho-analysis is a very popular bourgeois doctrine on the unconscious today. The Austrian psychiatrist Sigmund Freud (1856-1939) is known for his work on unconscious psychic phenomena. He proposed a fairly effective method of treating mental illness by helping the patient bring out and comprehend experiences that he was not originally aware of. At the same time he unjustifiably interpreted the unconscious as the determining factor in all man's vital activity. He considered the primary determinant of man's actions and behaviour to be their inborn instincts and appetites (above all sexual), rather than their thought, intellect and social feelings. He also believed that instinct determines not only the individual's character and behaviour, but also such social phenomena as culture, art, science, etc. The Freudian doctrine is on the whole erroneous, its view of the human mind suffers from a one-sided biological approach. Freud disregarded the determining influence exerted on the individual by social factors, and presented the unconscious as the independent basis of the mind. Unconscious phenomena, however, function as components of a single human mind born of man's necessary existence in a social environment. This mind is therefore basically tantamount to the individual's realisation of his relation to society and to himself (self-consciousness). Man is first and foremost a conscious being. It is intellect and will rather than concealed animal instincts that regulate his acts in society, in line with his world outlook and the views he has formed about spiritual values, moral standards, the meaning of life and political ideals. These views take

shape during man's life in society and are determined by specific social conditions.

The Freudian interpretation that the mind is basically unconscious rules out a correct assessment of the role of ideas in society. It is just as untenable as the vulgar materialist view of consciousness.

10. The Creative Force of Consciousness

Consciousness acts as the reflection of the objective world. This fact is the starting point of the materialist concept of consciousness as opposed to idealism. The latter mystifies ideal phenomena considering them as supernatural entities independent of the human brain. In actual fact, however, there is no such thing as absolute independence of consciousness. For instance, changes in social being considerably affect man's views and psychology. The social being of the Indian countryside, for example, has undergone certain changes brought about by the recent introduction of new farm technology and high-yield varieties of wheat and rice. The 'green revolution' has had a substantial economic effect in boosting crop yields. At the same time it has exacerbated the uneven development of separate regions and has intensified social differentiation in the countryside. The new technology and modernisation of farming have required the restructuring of the existing irrigation system; small-scale irrigation networks are growing rapidly and fertilisers and machinery are being used more widely. Today some 200,000 tractors work India's fields. Yet the new technology can only be used by landlords and rich farmers. The 'green revolution' is therefore causing further impoverishment and is ruining the peasants, depriving them of their land, and increasing agrarian overpopulation; it aggravates the problem of employment, while increasing the demand for hired labour. Moreover, the Indian countryside is seeing the accelerated development of commodity-money relations. All this has found reflection in people's consciousness. The 'green revolution' has changed the social consciousness of all strata of the rural population. The destruction of the traditional farming system, formed over the centuries, and the need for new technology raise the vital problem of the development prospects of agri-

culture and the destinies of the peasantry. The ongoing social change is beginning to convince the rural proletariat and peasantry that the bourgeois idea of the 'effectiveness' of capitalist development is false. And the rural strata are starting to realise that their basic interests are incompatible with a capitalist perspective.

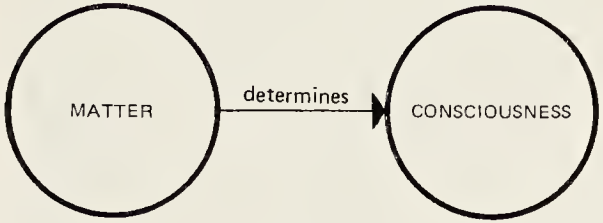
Consciousness is thus the reflection of social being and is secondary to and derivative from it. At the same time, it would be incorrect to draw a sharp distinction between the processes of reflection and the creative activity of the consciousness which is absolutised by the idealists. Activity or activeness is the property of all living creatures to selectively reflect the surrounding world while correlating their behaviour to the character of external influences. In man, the active nature of reflection assumes fundamentally new forms. The final aim and function of human consciousness is not just to acquire information about the world so as to adapt itself to it, but to transform it on the basis of knowledge.

How does the activity of the human consciousness manifest itself? At the level of sense perception it can be seen in the active selectiveness and purposefulness of the senses, in the uniqueness of reflection conditioned by the individual's interests, abilities and life experience. In the thinking process the creative power of consciousness consists in abstracting those properties of objects that are unimportant to the subject, in manipulating concepts and acquiring knowledge through inference, in advancing new ideas, hypotheses, plans, purposes, predictions, etc.; in constructing theoretical models, scientific concepts, and in the search for new methods of cognition. The concept of active consciousness also includes acts of creative imagination and fantasy, and also an ability to reflect reality fantastically in the form of illusions and religious images.

The creative activity of the consciousness is considerably amplified nowadays by the fact that we can model several functions of human thought (logical operations, memory, the identification of images, etc.) using cybernetic devices—computers. The latter have created the conditions for a further development of man's creative abilities, for they are increasingly freeing him from the need to engage in purely routine, mechanical, mental

ACTIVITY OF THE CONSCIOUSNESS

METAPHYSICAL MATERIALISM

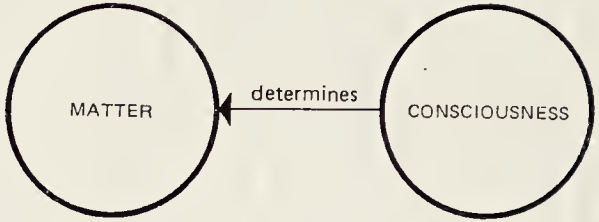


Consciousness is passive contemplation of the world

'Man's consciousness not only reflects the ... world, but creates it.... The world does not satisfy man and man decides to change it by his activity.

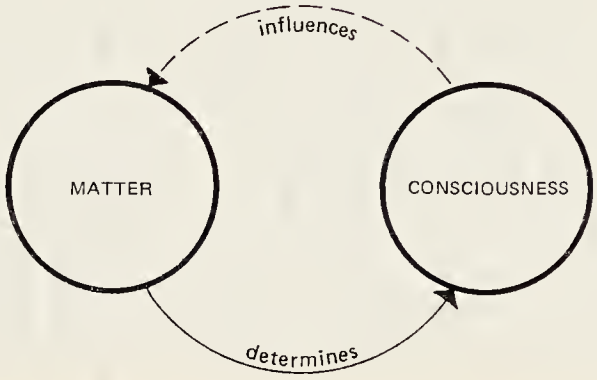
Lenin

IDEALISM



Idealism exaggerates the activity of the consciousness to an absurd conclusion, maintaining that consciousness is the creator of the world

DIALECTICAL MATERIALISM



'It is precisely *the alteration of nature by men,* not solely nature as such, which is the most essential and immediate basis of human thought, and it is in the measure that man has learned to change nature that his intelligence has increased.'

Lenin

operations, such as retrieving and analysing information amenable to logico-mathematical processing. The very creation of 'thinking machines' shows how great the creative power of the human intellect is. At the same time it is another scientific argument in favour of the materialist doctrine on the natural (socio-historical) character of consciousness, since it makes it possible to transfer some of its functions to man-made machines. Using a computer to imitate man's mental acts does not mean, however, that one can identify his consciousness with a computer. The computer is an instrument of man's thought rather than an independent subject of knowledge. Properly speaking, only physical (electronic) processes take place in a computer and it lacks all ideal elements, such as aims, self-consciousness, will, values, etc. Computers work on a set programme and bring about people's creative aims, thus helping to demonstrate the creative activity of human consciousness.

This activity can be seen especially clearly in the mental control man has over his practical activity. Consciousness, arising from the material interaction between people and the surrounding natural and social world, at the same time determines the aims and methods of man's practical activity. This concerns both individual and, especially, social consciousness. Social being—social consciousness as its reflection—practical social action—such is the most general scheme for the interrelation between reality and the social subject (the individual, social group, class, etc.). It is at the level of consciousness that the functioning social relations are reflected, the information obtained is correlated with the requirements and interests of a given social group, and the goals of man's activity are formulated. Goal-positing enables one to establish specific relations between knowledge and reality. At this stage, man's consciousness performs mental operations which are in the form of evaluative and normative judgements, criticism, theoretical constructs, views on the world, reasoning, etc. People's awareness of their interests in the course of this complex mental process of goal-positing is also a transition from thought to practical act.

The goal acts as an impetus, a direct motive for a conscious social act. For the action of the masses, the goal is a special kind of idea, i.e., a thought performing an important synthesising

function in the individual's spiritual life. Idea stands out from other forms of knowledge and concepts because it expresses class interests and aims in concentrated form. Within idea is contained a striving for practical realisation, for its materialisation and self-assertion. Idea incorporates knowledge of the ways and means to objectify itself and is the plan of action for the subject.

11. The Struggle of Ideas

All this explains why an antagonistic class society witnesses an acute struggle of ideas. Ideological struggle is, in the final analysis, the struggle of classes whose interests these ideas express. Any social action presupposes the existence of an idea not only as its theoretical justification, but also as an indispensable condition for its accomplishment. 'Material force must be overthrown by material force,' wrote Karl Marx, 'but theory also becomes a material force as soon as it has gripped the masses.'[1] An idea becomes a direct motive force of practical action only when it is converted into an element of mass consciousness, i.e., when it is correlated to social psychology (i.e., people's interests and requirements, their aspirations and sentiments, etc.). When they take possession of the masses, ideas become a material force as they render organisation and purpose to their practical action, and direct people's will to the solution of mature social tasks.

It is thus clear from the above why it is so important to educate the revolutionary consciousness of the working masses and to fight against all reactionary ideas. In capitalist countries, a considerable portion of the working class is still influenced by bourgeois ideology and has a reformist rather than revolutionary mentality. This is explained among other things by the intensive manipulation of the mass consciousness by bourgeois propagandist media. Another adverse factor is the propaganda of the pseudo-revolutionary views of the neo-anarchist and ultra-left, extremist elements. Ideological struggle becomes even more important because it is being waged in the prevailing conditions of peaceful coexistence between the two opposing social systems.

[1] K. Marx, 'Contribution to the Critique of Hegel's Philosophy of Law. Introduction'. In: Karl Marx and Frederick Engels, *Collected Works*, Vol. 3, Moscow, 1975, p. 182.

The advocates of capitalism allege that the ideological commitment of the Communists has now become an anachronism and only prevents the solution of acute problems. They call for the 'de-ideologisation' of modern social consciousness and for the establishment of peace in the field of ideology (though some demand a more inflexible ideological line).

The Communists assert, however, that peaceful coexistence by no means rules out class struggle either inside capitalist society or between capitalism and socialism. Neither neutralism nor compromise is admissible in the ideological field, since communist and bourgeois ideas are antagonistic to each other. '...The *only* choice is—either bourgeois or socialist ideology,' wrote Lenin in the early 1900s. 'There is no middle course (for mankind has not created a "third" ideology, and, moreover, in a society torn by class antagonisms there can never be a non-class or an above-class ideology). Hence, to belittle the socialist ideology *in any way, to turn aside from it in the slightest degree* means to strengthen bourgeois ideology.'[1] Such a clear-cut formulation of this question stems of necessity from the scientific conception of the role of ideas in society in general and in social transformations in particular.

The reactionary classes fear the prospect of losing their domination. They try to hamper the objective, law-governed process of national liberation and social emancipation, taking recourse to various ideological falsifications invented by imperialist propaganda. 'Imperialism cannot expect to succeed if it openly speaks of its true aims. It is compelled to create a system of ideological myths to disguise its true intentions and lull the vigilance of the peoples.'[2]

The very course of world history refutes the apologetic constructions of capitalist ideologists. Yet the myths will not dissipate of themselves. A stubborn and consistent struggle is required to eradicate them. The ousting of reactionary ideas is essential for the consciousness of the working classes to become an active creative force in the transformation of reality.

---

[1] V. I. Lenin, 'What Is to Be Done', *Collected Works*, Vol. 5, Moscow, 1975, p. 384.

[2] *International Meeting of Communist and Workers' Parties, Moscow 1969*, Prague, 1969, p. 163.

Chapter V

DIALECTICS: THE UNIVERSAL CONNECTION AND DEVELOPMENT

There is more to scientific philosophy than just the materialistic solution to the fundamental question of philosophy. What we have said about the unity of the world and about consciousness as a product of the historical self-development of matter makes it clear how important is the dialectical conception of reality. Dialectics holds a special place in the scientific world view.

1. The 'Life Blood' of Marxism

As Lenin put it, dialectics is 'what is decisive in Marxism',[1] the 'life blood' of Marxism,[2] since it 'has fused the theory and practice of the class struggle into one inseparable whole'.[3] In our day and age what Marx had to say about dialectics is especially relevant: 'In its rational form it is a scandal and abomination to bourgeoisdom and its doctrinaire professors, because it includes in its comprehension an 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; because it regards every historically developed social form

---

[1] V. I. Lenin, 'Our Revolution', *Collected Works*, Vol. 33, Moscow, 1966, p. 476.

[2] V. I. Lenin, 'Certain Features of the Historical Development of Marxism', *Collected Works*, Vol. 17, Moscow, 1963, p. 39.

[3] V. I. Lenin, 'Preface to the Russian Translation of Karl Marx's Letters to Dr. Kugelmann', *Collected Works*, Vol. 12, Moscow, 1972, pp. 107-108.

as in fluid movement, and therefore takes into account its transient nature not less than its momentary existence; because it lets nothing impose upon it, and is in its essence critical and revolutionary.'[1] It is no chance, therefore, that the theory of dialectics has now become an object of acute ideological struggle. Bourgeois scholars indulge in various falsifications of materialist dialectics, more often than not denying any objective significance of it and brushing it aside as an 'empty formula'. In other cases they limit dialectics solely to the sphere of subjective thinking, rejecting the action of the laws of dialectics in nature. Moreover, they distort, as a rule, the basic postulates of materialist dialectics, its laws and categories, opposing the 'negative', 'phenomenological', 'tragic' and other interpretations of dialectics to its Marxist conception. The untenability and absurdity of such views becomes evident when we consider the scientific content of dialectics.

What is dialectics? To answer this question we must first of all distinguish the objective dialectics of nature and society from the doctrine or theory of 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 through opposites which asserts itself everywhere in nature, and which by the continual conflict of the opposites and their final passage into one another, or into higher forms, determines the life of nature.'[2] Thus objective dialectics is understood as the unity of infinitely varied matter in its self-motion, while subjective dialectics belongs to the sphere of reflection and thought. Thought may be spontaneously dialectical: the mutability of things, the contradictoriness of the phenomena of reality, etc. is also fixed by empirical consciousness in the everyday life of the people. This is expressed, for example, in folk sayings and observations. Thus wise popular sayings express the unity of opposites, e.g., 'Death borders upon our birth and our cradle stands in the grave', 'in health there is sickness, in success, failure, and in youth, senility'. When, however, the dialectics of being is conceived of theoretically, we must deal with philosophical doctrines of dialectics.

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

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

PRINCIPAL FORMS OF DIALECTICS

PERIOD	THEORY	EXPONENTS	CONTENT
6th-4th centuries B.C.	Spontaneous materialist dialectics of Ancient Greece and the Ancient East	Heraclitus, Aristotle	'This primitive, naive but intrinsically correct conception of the world is that of ancient Greek philosophy, and was first clearly formulated by Heraclitus: everything is and is not, for everything is *fluid*, is constantly changing, constantly coming into being and passing away.' *Engels*
18th-19th centuries	Idealist dialectics of German philosophers	Fichte, Kant, Hegel	'The law of the transformation of quantity into quality and vice versa; 'The law of the interpenetration of opposites; 'The law of the negation of the negation. 'All three are developed by Hegel in his idealist fashion as mere laws of *thought* .... The mistake lies in the fact that these laws are foisted on nature and history as laws of thought, and not deduced from them.' *Engels*
19th-20th centuries	Scientific, materialist dialectics of Marxism-Leninism	Marx, Engels, Lenin	'It is the merit of Marx that ... he was the first to have brought to the fore again the forgotten dialectical method; its connection with Hegelian dialectics and its distinction from the latter and at the same time to have applied this method in *Capital*.... Dialectics reduced itself to the science of the general laws of motion, both of the external world and of human thought.' *Engels*

Dialectical views of the world first appeared, as we have noted, in the doctrines propounded by ancient thinkers. Early Buddhists, for example, as well as the ancient Greeks, held to a spontaneously dialectical mode of thinking. The followers of Buddhism in the 6th and 5th centuries B. C. taught that there was nothing in the world that might not be subject to change. It seemed to them that any one thing exists and does not exist. The flame of a torch seems invariable, but at any instant it turns different. It is not one and the same. Our body, sensations and knowledge are also transient. With every passing minute life involves the appearance of the new and the disappearance of the old. In the world, therefore, there is no being, only becoming. The process of continuous becoming was presented as the unity of things. A seed and a tree are one and the same. A fig-tree one thousand years old is the same as the seed from which it has grown.

Of the pre-Marxian philosophers dialectics was developed most of all by Hegel. But his was only a dialectic of concepts. It contained rational propositions, but on the whole its idealistic foundations led to a mystification of dialectics.

Marx and Engels, unlike Hegel, deduced dialectical concepts and laws, not from the abstract sphere of ideal essences, but from an analysis of material phenomena and processes and from generalisations about the history of social practice and scientific knowledge. The dialectics of the ancient thinkers was naive and spontaneous and Hegelian dialectics was idealistic, while the founders of scientific communism produced a materialist teaching on dialectics. It adequately expressed objective dialectics in the unity of the basic elements of the universal interconnection of things (the structural aspect) and in their change (the process and development aspect).

2. The Principles of Materialist Dialectics

The materialist teaching on dialectics views the world as matter moving according to the laws of nature. This fundamental scientific thesis lies at the heart of the basic ideas of Marxist dialectics. These include, above all, the principles of universal

connection and development. These principles interfuse. The founders of dialectical materialism therefore defined dialectics as 'the science of the universal connection' or 'the science of development' in the fullest and deepest meaning free from one-sidedness, thus describing dialectics as an inseparable unity of its basic ideas. It is best to begin the treatment of materialist dialectics with the concepts of connection and development.

The world is not a chaotic agglomeration of isolated things but an integral totality of interacting phenomena. The relations between objects and their properties, manifested in their mutual determinacy, conditionality and dependency, are expressed in the concept of connection. There is a close connection, for example, between components of the geographical environment, such as the lithosphere, the lower parts of the atmosphere, the hydrosphere, the layers of humus and top-soil, and the animal world. These components of the geographical environment interchange substance and energy, and this changes the environment itself. The geological structure of the Earth's crust has become more complex over geological stages, and new and more organised types of animals and plants made their appearance. All this was connected with the formation of new and more complex organic compounds. The emergence of new species of organisms and new types of soil led to a more complex chemical composition of inland and consequently oceanic waters. This in turn influenced the composition of the atmosphere which also became more complex. Human civilisation brought new influences to bear on the nature of the Earth, which were far from always being positive. Changes in the geographical environment are becoming more pronounced now, under the rapacious exploitation of nature by the capitalist monopolies, the rapid development of industrial production during the scientific and technical revolution and in the absence of planned, global control of society's impact on nature. These changes are even catastrophic in many respects, as they bring about ecological crisis. Ecological contradictions may arise for different reasons. There are general social reasons: for instance, the law of capitalism entails a predatory use of natural resources, which leads to catastrophic consequences during scientific and technical revolution. There are also local reasons: in the zones of

India, bordering on deserts, for example, the intensive grazing of cattle, and more especially of goats, results in erosion and the sands advancing. In some areas of Rajastan the desert advances at a rate of almost one kilometre a year. The connection between cattle-grazing and the erosion of pastures engenders complex problems since animal husbandry is often the main occupation for the inhabitants of semi-desert areas.

In objective reality, the connections between objects, phenomena and events are varied. They may be internal or external, immediate or mediate, direct or reverse, ambiguous or unambiguous, necessary or accidental, essential or inessential, and so forth. Connections may be classified according to the basic forms of matter in motion into physical, chemical, biological and social. They can also be identified according to spatial and temporal parameters, the degree of generality, etc. Of special importance is the knowledge of law-governed, logical connections of phenomena.

3. The Concept of a Law

What is a law? It is far from being just any relation or connection between things. A law is above all a form of generality in nature. It embraces the general and the similar which is inherent in a group of phenomena, and thus expresses their unity. A law operates in certain conditions and knows no exceptions. A rice seed may produce only rice and nothing else. All bodies possessing mass are subject to the law of gravity. The law of value operates whenever there is commodity production. Thus, a law expresses what things have in common and represents the essential and necessary relations between them. It is marked by a stable and recurrent connection between phenomena. No matter how classes and class relations may change in an antagonistic society, for example, so long as there exist exploiters and exploited they will always be engaged in the class struggle. So long as there is imperialist oppression, people will struggle against it.

The logical connection between objects and phenomena is the most important feature of the dialectics of nature and society. Laws operate objectively regardless of whether or not people wish them to. But the existence of laws independent of

man, outside consciousness does not at all mean that people are powerless against them.

Man uses cognised laws in his practical activity. By influencing the conditions of their functioning he can also influence the character and results of their action. The state of weightlessness obtains, for instance, in spaceships, but the force of gravity can also be created artificially. The laws of society have their specific features, manifest in the social action of the popular masses—the genuine makers of history. Having cognised the laws of social life people can purposefully influence the course of historical development.

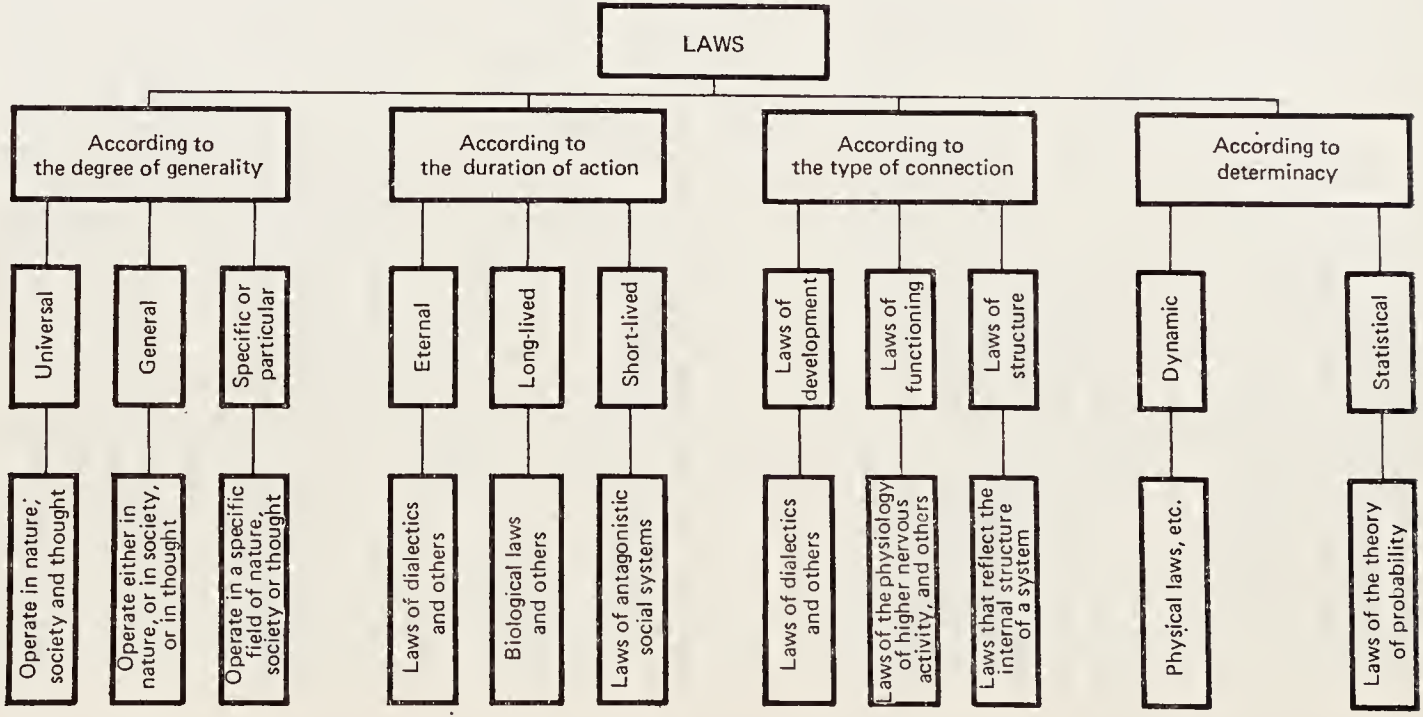
There are various types of law in the objective world. The so-called dynamic laws determine the existence and motion of separate bodies. Such, for instance, are Galileo's and Kepler's laws of celestial mechanics, the laws governing the trajectory of a flying shell, the laws responsible for the functioning of a living organism, etc. On the other hand, such laws that are revealed only in the mass of phenomena are usually called statistical laws. Statistical laws govern the chaotic motion of molecules in a gas, the behaviour of an 'ensemble' of microparticles, many demographic processes in society, such, for instance, as the correlation of births of boys and girls as expressed in the 106 : 100 ratio, etc. The dynamic laws, if they are known, make it possible to forecast, fairly accurately, the emergence of a particular phenomenon, its properties and states, while statistical laws serve only as the basis for determining the degree of probability of the emergence or change of a corresponding phenomenon.

By the sphere of their action or the level of generality laws can be broken down into the particular, general and universal. Particular laws are specific to one form of the motion of matter or to some particular phenomena. General laws operate throughout inorganic or organic nature. They also function in human history, unlike the laws of the development of separate socio-economic formations. Alongside the particular and general laws there are also such necessary, essential and recurrent connections in the objective world which are intrinsic to all phenomena and processes of nature and society as well as to human thinking. These are the universal laws which are also called the laws of dialectics. They include, for example, the law of the causal de-

CLASSIFICATION OF LAWS

'The concept of *law* is *one* of the stages of the cognition by man of *unity* and *connection*, of the reciprocal dependence and totality of the world process.'

Lenin



terminacy of phenomena and the law of the transition of quantitative changes into qualitative ones. Their elucidation allows one to comprehend the world in its entirety.

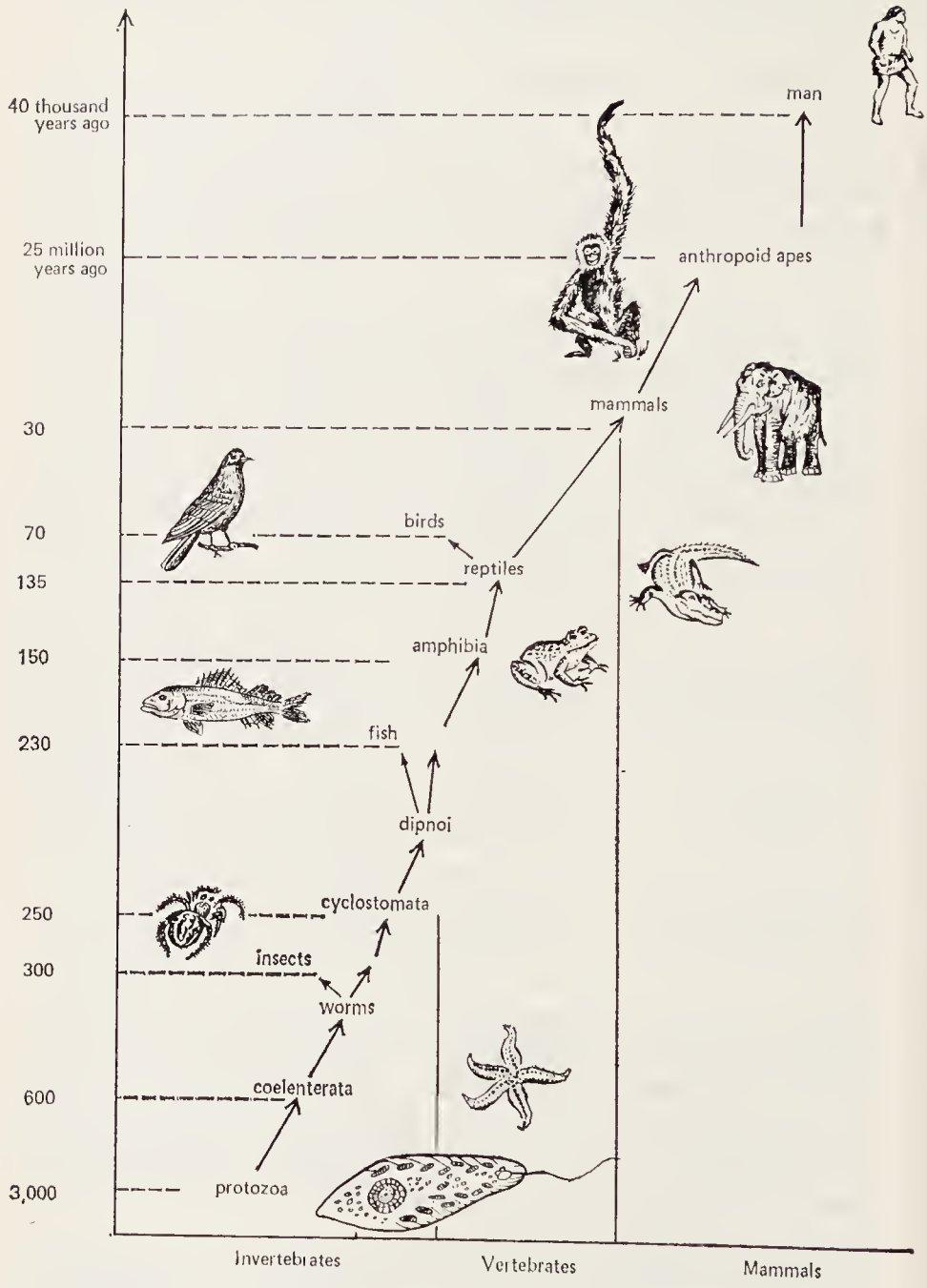
4. Dialectics and Metaphysics

Various specific forms of matter arise from its self-motion and the development of the universal world connection, which also expresses the constant development of objective reality. All forms of matter develop from other forms and states of matter.

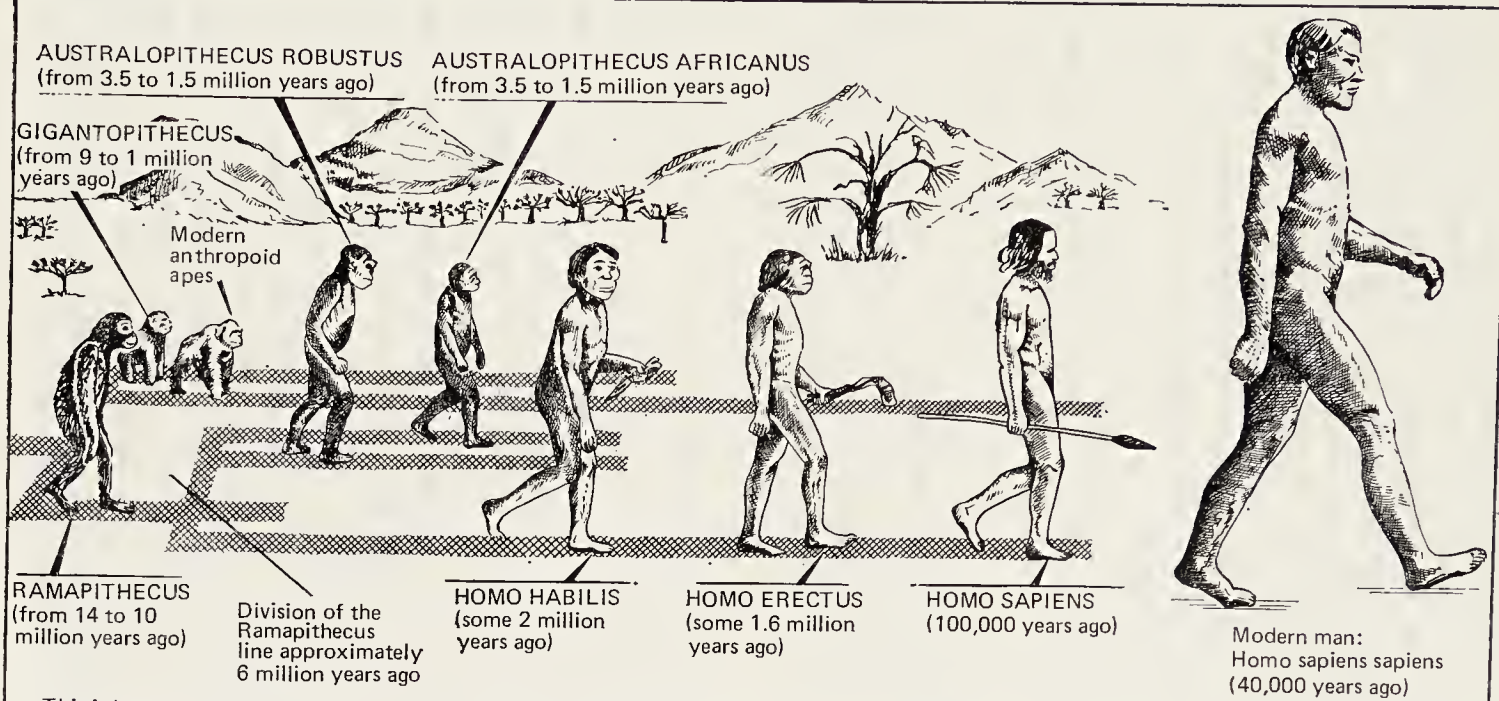
The way material forms differ and become more complex is evident even if we take a very general view of the changes occurring in the world. Some 18,000 million years ago the state of the surrounding world was qualitatively different from that of today. Galaxies and stars did not yet exist. Matter was very dense and extremely hot, with very intensive processes occurring between particles of matter and antimatter. As the temperature decreased, light elements underwent synthesis in plasma, protons combined with electrons thus forming atoms of hydrogen, and other chemical elements began to take shape. Some 12,000 million to 15,000 million years ago matter began to concentrate in separate Galaxies. The solar system and the Earth formed some 5,000 million years ago. The rate of development started to increase. Some 3,000 million years ago life began to evolve from matter united in nucleic acids and proteins. Primitive unicellular organisms, however, appeared much later. Subsequently, more complex forms of life came into being. Man began to develop some two million years ago and only 40,000 years ago did he emerge from the animal kingdom when a primitive form of human society began to develop. Development then became increasingly more dynamic, involving important changes in the productive forces, the social structure and social consciousness. Some 5,000 years ago society split into classes, and forms of exploitation evolved as a result in the antagonistic slave, feudal and capitalist socio-economic formations. Sixty odd years ago socialist society appeared with qualitatively new relations among people, based on the mutual assistance and cooperation of workers who were freed from exploitation.

All these facts force one to recognise the development of the world, and thus one can hardly meet a philosopher

ORIGIN OF ANIMALS OF TODAY



MAN'S GENEALOGICAL TREE



This is how some specialists view man's genealogical tree. A common ancestor of man and modern anthropoid apes lived more than 14 million years ago. Then the line divided into three branches. One of them developed into gorillas, chimpanzees and orangutans, another resulted in the emergence of the Gigantopithecus that later died out, and a third evolved into Ramapithecus. The Ramapithecus line divided into two australopitheci which also died out, and the ancestor of modern man, which gradually evolved into Homo sapiens

today who can ignore them, as was the case in times dominated by the traditional metaphysical notions about the immutability of the world. And yet it is possible to recognise this development and at the same time to reject dialectics. It all depends on how one interprets the process of development. 'The two basic (or two possible? or two historically observable?) 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. The second *alone* furnishes the key to the "self-movement" of everything existing; it alone furnishes the key to the "leaps", to the "break in continuity", to the "transformation into the opposite", to the destruction of the old and the emergence of the new.'[1]

Using Lenin's characterisation of the two conceptions of development we may specify what we have said above about the opposition of dialectical and metaphysical notions of reality. First of all, dialectics and metaphysics (when the latter is forced to recognise the fact of development) radically diverge in their definition of the motive force, the source of changes in the world. Dialectics believes that this source lies inside things themselves, while metaphysics places it outside them. In the dialectical conception, the motive force of development consists in the contradictoriness of phenomena, while in metaphysics changes are caused by external forces (and in relation to matter as a whole these external forces can only be the Absolute Idea, Brahman or God). Secondly, dialectics conceives of development as the generation of the new and the destruction of the old, as a continuous renovation of the world and a forward movement. Metaphysics considers development a continuous and endless

[1] V. I. Lenin, 'On the Question of Dialectics', *Collected Works*, Vol. 38, Moscow, 1977, p. 358.

repetition of one and the same qualities, dispensing with the emergence of genuinely new forms of matter. Dialectics and metaphysics are distinct in their understanding of the content of the development process. Dialectics is a 'life-asserting' conception of development, i.e., as a scientific theory it strives to express the self-motion of matter in all its multiformity, in the unity of its various features (continuity and discontinuity, stability and change, gradualness and leaps, negation and succession, etc.). By contrast, the metaphysical doctrine of development is 'lifeless' and 'pale', for it is extremely narrow, failing to embrace all the rich facets of movement or to express the unity of its opposites. Metaphysics is a one-sided mode of thinking that makes absolute any particular feature of the processes observed in the world.

A metaphysical view of the world is manifest in various theories: in ignoring the qualitative difference between things belonging to different forms of the motion of matter (mechanism); in absolutising moments of rest (the theory of equilibrium) or change (relativism); in the doctrine of immovable substance; in separating space and time from matter in motion; in recognising the finality of the world in space and time, etc.

Many bourgeois scholars of today, as in the past, conceive of development in the spirit of trite evolutionism criticised by Lenin, i.e., as a purely evolutionary, gradual process without contradictions, leaps or fundamental qualitative change. Such are, for instance, various bourgeois and reformist theories of 'class peace' and 'the transformation' of capitalism into a 'post-industrial' society, etc. Also current today are basically undialectical views of development such as that considering it a chain of 'great leaps' and permanent destructive negations.

Materialist dialectics is opposed to metaphysics in all its manifestations. Only from a dialectical position can one comprehend the objective world and the universal laws of its development. These fundamental laws include the laws of the unity and struggle of opposites, the law of the transition of quantitative changes into qualitative ones and back again, and the law of the negation of negation. In their totality these laws reveal the content of the process of development in the synthesis of its most important aspects, i.e., its source, mechanism and direction.

Chapter VI
CONTRADICTIONS AS THE SOURCE OF DEVELOPMENT

Denying the primacy of matter, idealists have at all times also denied its capacity to develop itself. They set the cause and source of the movement of all that exists in the creative activity of the non-material entity, such as the spirit, soul, will, or the omnipotent and all-creative Brahman.

'This One is (the inferior) Brahman, this is Indra, this is Prajāpati; this is all these gods; and this is these five elements, viz. earth, air, space, water, fire; and this is all these (big creatures), together with the small ones, that are the procreators of others and referable in pairs—to wit those that are born of eggs, of wombs, of moisture, of the earth, viz. horses, cattle, men, elephants, and all the creatures that there are which move or fly and those which do not move. All these have Consciousness as the giver of their reality; all these are impelled by Consciousness. The universe has Consciousness as its eye, and Consciousness is its end. Consciousness is Brahman. The world is led (produced) by knowledge (the Self). Knowledge is its cause. Knowledge is Brahman.'[1] The Greek thinker Aristotle (384-322 B.C.) considered matter to be passive and amorphous and held that the origin of activity was the non-material form. The ultimate source of all movement was in his view 'the form of all forms', God, 'the motionless Prime Mover'. For the idealist Hegel, the source of Nature was his Absolute Idea. The modern religious philosophy of Neothomism explains changes

[1] Eight Upanishads, Vol. II (*With the Commentary of Sankaracarya*), Advaita Ashrama, 1958, p. 71.

in material things by the action of a goal-positing spiritual entity. Pre-Marxian materialists, too, were unable to give a correct explanation for the causes of qualitative changes in the world, metaphysically interpreting matter, as we have seen, as immutable and motionless, and explaining the motion of separate bodies by the action of external force.

1. The Nucleus of Dialectics

According to dialectical materialism, the development of the objective world can be explained without recourse to the activity of forces external to matter. The source of the development of matter lies in matter itself, in its internal contradictoriness as a unity of phenomena infinitely varied in their quality, a unity of change and stability, continuity and discontinuity. The self-contradictoriness of matter in motion is manifested in the contradictoriness of all phenomena of nature and society and also in thought. Contradictions are to be found everywhere; they are universal in character. This is borne out by scientific data and by people's life experience itself. In inorganic nature contradictions are manifest in the relations between particles and antiparticles, between substance and field, attraction and repulsion, between positive and negative electric charges, waves and particles (corpuscles), action and counteraction, the association and dissociation of atoms, oxidising and restoration processes, absorption and desorption, endogenous and exogenous processes, etc. The sphere of life has its own contradictions, such as assimilation and dissimilation, life and death, heredity and mutability, the organism and the environment, the individual and the species, intraspecies and interspecies contradictions, etc. In society contradictions are expressed in the relations between the forces and the relations of production, the exploiters and the exploited, socialism and capitalism, economics and politics, the forces of war and peace, of progress and reaction, between the developing countries and neocolonialism, etc. In man as a personality contradictions arise between his intellect and feelings, between the social experience he has assimilated through learning and his personal life experience, between his appetites and aspirations on the one hand and

the conditions for their realisation on the other, between his personal and social consciousness, etc.

This universal contradictoriness of all that exists is also the most profound motivating force behind development, and the source of all changes in objective reality. The doctrine of contradictions is therefore the essence of dialectics. 'In brief, dialectics can be defined as the doctrine of the unity of opposites,' Lenin said. 'This embodies the essence of dialectics. . . .'[1]

How, then, does materialist dialectics treat the problem of contradiction? First of all, it assumes the objective nature of contradictions. For metaphysicists there can be no contradictions in things themselves. According to them contradictions arise only in man's thought as a result of the violation of the laws of logic. Things, they believe, are an identity that rules out any difference. Yet such abstract and absolute identity cannot exist. Of course, any material object has some identity, i.e., it is marked by inner unity, stability, and relative unchangeability. The one-thousand-year-old fig-tree mentioned above may from this angle be viewed as an identity, for it has remained one and the same tree for many centuries. Yet dialectics finds differences in identity. For instance, every object has different elements in its structure, the object itself is changing, and there are differences between it and other objects. A fig-tree, for example, has many dissimilar properties at the age of five, fifty, five hundred and one thousand years, though retaining its specific quality as a given species of tree. Or take a natural phenomenon such as visible light. As perceived by the human eye this is white light, representing a flow of electromagnetic radiation. If it passes through a prism it decomposes into a spectrum of various colours. Thus in this case, too, there are differences in identity, differences that are determined by the length of the electromagnetic waves composing the visible light.

Or take another example. The national liberation movement, while retaining its general anti-imperialist orientation, contains a difference in itself: one group of developing countries remains

---

[1] V. I. Lenin, 'Conspectus of Hegel's Book *The Science of Logic*', *Collected Works*, Vol. 38, p. 223.

in the orbit of the world capitalist economy, while another takes the path of socialist orientation.

'Difference' is a relation of non-coincidence, the heterogeneity and mutability of the elements of the thing itself, as well as of its and other things' properties. Each real thing is objectively marked by both identity and difference. Metaphysicists do not see the inextricable connection between identity and difference reasoning according to the 'either yes or no' formula. Yet this mode of thinking is far from always correct. To take an example, is the national bourgeoisie of the developing countries progressive or reactionary? We cannot answer this question unambiguously. After all, this bourgeoisie is not connected with imperialist circles and is therefore objectively interested in accomplishing the main tasks of the anti-imperialist, anti-feudal revolution, in developing the national forces of production and abolishing the domination of foreign monopolies. It is thus progressive in character, retaining an ability to take part in the revolutionary struggle against imperialism and feudalism. At the same time, the national bourgeoisie, a class existing on the basis of private property and exploitation, is also marked by something common (i.e. identical) to any exploiting class. Its progressive nature is therefore relative, since it is unstable in the struggle against imperialism and feudalism and is prone to compromise with them. It tries to impose a capitalist line on the developing nations, a line that brings new hardships to the workers in town and country. This demands that the working class use a correct tactic of unity and struggle in relation to the national bourgeoisie.

For example, the Communists of India support the generally recognised progressive aspects of India's national policy, such as the struggle for economic independence, the strengthening of the public sector, radical socio-economic reforms, secularism, an anti-imperialist non-alignment policy, friendship and cooperation with the socialist countries and the assertion that the building of socialism is the goal of society's development. At the same time, the Communist Party of India opposes aspects of the bourgeois policy which are reactionary and work against the interests of the people, such as the growing exploitation of the working people, the worsening of their living conditions, the

defence of the interests of the powerful landlords and rich peasants in the countryside, and the efforts of the right wing to retain some influencc among the broad circles of petty bourgeoisie by relying on such traditional institutions as the castes, regionalism, etc.

2. The Unity and Struggle of Opposites

Differences in and between things may be inessential—in the degree and intensity of manifestation of some of their properties—and essential—when the properties are of different orders and development trends are oriented in different directions. Essential differences assume the form of opposites when a relation of incompatibility, exclusion or mutual ncgation obtains inside a thing or between different things. The boundary between differences and opposites is mobile, so that they can interchange. In some interconnections and interactions a specific material formation is to be found in the relation of difference, in others in the relation of opposition. The relation of the opposition of objects of reality, and of their properties, expresses in a developed form the contradictoriness that is inherent in all things and is already contained in differences. Here we pass from a mere statement of the objectivity and universality of contradictions to the consideration of their essencc as a most important component of the dialectico-materialist world view.

Let us take some examples. The structure of the atom is formed from the relation of the opposition between positively charged particles of the nucleus (protons)[1] and negatively charged electrons. All social life in capitalist society is based on the relation of the opposition between the bourgeoisie and the proletariat. Any cognitive act includes the relation of the opposition between analysis and synthesis. We deliberately take very simple examples from various spheres of reality, i.e., nature, society and thought. All of them concern a contradiction in which each of the aspects is in the relation of opposition to the other. This relation consists, first, in that its bearers (the atomic nuc-

[1] The nucleus consists of protons and neutrally charged neutrons.

leus and electrons, the bourgeoisie and the proletariat, analysis and synthesis) exclude and negate each other according to some criterion (the charge, the relation to the means of production, the nature of the interpretation of the information). Secondly, this relation is expressed in the mutual determinacy and mutual dependency of the opposite sides: an atom as a certain material formation exists only in the unity of a positively charged nucleus and negatively charged electrons; the capitalist mode of production is possible only on the basis of the relationship between the bourgeoisie and the proletariat, in the cognitive process there is no analysis without synthesis and vice versa. Contradiction also expresses this feature of the relation of opposition, i.e., the mutual exclusion and mutual presupposing of its formative aspects. It can therefore be briefly defined as the unity of opposites which mutually exclude one another and are in struggle. The law of dialectics that demonstrates the driving force of contradictions is formulated as the law of the unity and struggle of opposites.

According to this law, contradictions are the inner impetus of development, the source of the self-movement and change of things. If things were a constant identity in themselves, and lacked differences and contradictions, they would be absolutely immutable. Mohan Singh, an Indian poet, quite rightly said that 'rest is like death, life is a desire for change'.[1] Contradiction is a dynamic relation of opposites. The preservation of the specifics of a thing is determined by a specific unity of its opposites, while the struggle and mutual negation of opposites is a factor that induces qualitative change. The determining element in contradiction is therefore the struggle of opposites. The unity of opposites is transient and relative, while their struggle is as absolute as movement itself. Followers of the afore-mentioned metaphysical theory of equilibrium hold a different view. For them the struggle of opposites appears as something accidental, while the unity of opposites is considered to be a reconciliation and an evening-out of extremes. One encounters a variety of such views in the rather fashionable bourgeois sociological theory of structural-functional analysis. It treats capitalist society as an

[1] Mohan Singh, *Selected Works,* Moscow, 1960, pp. 95-96 (Russ. ed.).

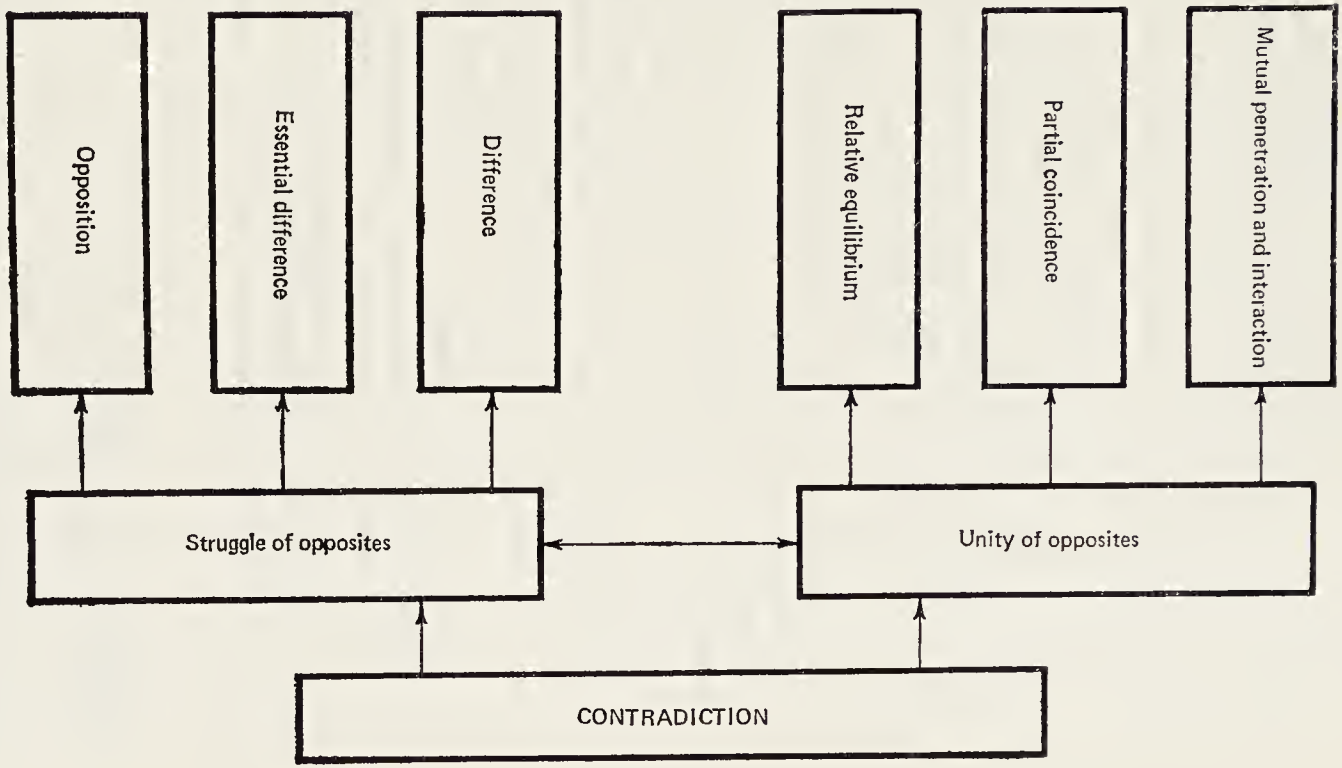
integral, stable social system whose elements interact with one another with different degrees of harmony. The 'theory of functional unity' views class struggle as a 'dysfunction', i.e., as a violation of the 'normal' conditions of functioning of bourgeois society. In actual fact, however, the working people's struggle against exploitation is an objective law in an antagonistic society. Bourgeois theoreticians take up the philosophical concept of equilibrium to justify and perpetuate the capitalist system.

It would be wrong ever to consider stability and balance, including equilibrium of opposites, as absolute. Balance or equilibrium is always transitory. Opposites in a phenomenon cannot constantly and absolutely balance each other since they mutually negate, collide with, struggle against and exclude each other. In their struggle periods of relative equilibrium intersperse with those where one dominates the other. Thus, the metabolism of an individually developing organism is first marked by a preponderance of assimilation over dissimilation. The organism grows, develops and becomes stronger. This is followed by a relatively long period when assimilation and dissimilation are in equilibrium or balance, when the organism reaches maturity, the peak of its forces, and begets progeny. Yet as time goes by it begins to get older. In that period disintegration and dissimilation begin to prevail over assimilation, and finally cause the organism to die.

Apart from temporary and transient periods of equilibrium and balance the unity of opposites also exists in the form of their interfusion, as obtains, for instance, in the elementary particles forming an atom, in the interaction of the positive and negative poles of a magnet, etc. In these cases the absolute nature of the struggle of opposites is expressed in the mutual exclusion of opposites, in the qualitative conversions of material formations.

The struggle of opposites is absolute in the sense that it leads to the evolution of a contradiction and ultimately to its resolution. Contradictions, like everything else in the world, are subject to evolution. During the universal interaction of things some contradictions arise, others disappear. Development as a whole is a process whereby contradictions arise, evolve and are resolved. The latter happens when the struggle between the op-

STRUCTURE OF THE LAW OF THE UNITY AND STRUGGLE OF OPPOSITES



posites attains maximum tension and they can no longer continue within the framework of their existing unity. Depending on the specifics of the phenomenon and the character of the struggle of these opposites, the forms of resolution may differ: the old opposites may disappear and a new contradiction arise with an entirely new unity and struggle of opposites, or one of the opposites may win. In all cases the resolution of a contradiction is in some respects a process of conversion of the opposites into one another. Elementary particles having opposite properties convert into one another. Inanimate matter becomes animate in an organism in the process of its metabolism with surrounding nature. Life itself turns into its opposite, death, the latter serving as the beginning of new life; in primitive organisms reproduction and death coincide. Opposites also convert into one another in social processes. The law of private property demands, for example, that goods be bought and sold according to their value, that an equivalent exchange of values takes place. The capitalist and worker appear as owners, one of the means of production, the other of his labour power. At first glance the exchange seems to be equivalent: the capitalist appropriates the labour of the worker, the worker receives wages, the value of his labour power, from the capitalist. In actual fact, however, this is not an equivalent exchange. The worker only gets a part of the value of what he has produced, the rest goes to the capitalist, as surplus value or profit, at no cost to him. Hence a law of appropriation which calls for an equivalent exchange of value, under capitalism turns into a law of appropriation based on the infringement of equal exchange, i.e., it passes into its opposite. Extremes also converge in other cases, e.g., ultra-left radicalism merges with rabid reaction, free competition engenders monopoly when capitalism passes into its highest stage, imperialism, etc.

3. Internal and External Contradictions

Existing contradictions are multiform, not all of them play an identical role in development. Any contradiction is internal if applied to the material world as a whole. In this sense the world

appears as matter moving by virtue of its inner contradictions. In separate bodies, systems, phenomena and processes, however, one must distinguish between internal and external contradictions. Internal contradictions represent the unity of opposites in the very essence of objects and phenomena. By contrast, external contradictions are those which arise between simultaneously existing and interconnected phenomena; they express the relation of oppositeness between different things, each possessing its own internal contradictions.

The internal contradictions in a phenomenon are the determining cause, the immediate source of its development. External contradictions, on the other hand, influence internal processes as their conditions, affecting the character, rate and direction of ongoing change. The radioactive decay of chemical elements, for example, is determined by internal factors, viz. by the interaction of elementary particles having opposite properties and forming the structure of the atom. At the same time this process also depends to some extent on external conditions. For instance, the rate of radioactive decay differs according to the chemical compounds comprising a given element, the density of the substance, etc. The qualitative specific character of living organisms is determined by the structure of their genetic code. At the same time an organism cannot exist without a metabolism with the environment, while external factors may accelerate or slow down its development.

Especially important is a correct understanding of the correlation of internal and external contradictions in the development of society. Social relations, based on a definite mode of production of material wealth, run through people's lives. Contradictions between the productive forces and production relations, and contradictions between classes in antagonistic formations are the driving force of social progress. The geographic environment, the climate, the animal and vegetable world and other natural factors do not however lie behind radical social change, though they have an important influence on life in society. It would be altogether wrong to exaggerate the role of external influences, as is done so often in various unscientific geopolitical, racist, Malthusian and other theories. What is it, for instance, that determines the role of a particular state in world history, the

level of its social development and culture, and the rate of its social advance? Its regional location, the size of its territory and population, and the racial features of its people? No, these are determined by other decisive factors, i.e., the mode of production, the level of productive forces, and the nature and maturity of inner social contradictions. This also pertains to the crucial question of the victory of socialist revolution in separate countries. Communists recognise the decisive role of internal contradictions in social development and reject the concept of 'exporting revolution'. Revolution is not brought from without, but is a logical result and the highest form of the class struggle, and the resolution of internal social antagonism. Revolution is brought about by the working people of a given country under the leadership of the working class with the Communist Party at its head.

The existing boundary between internal and external contradictions is not at the same time absolute. The same contradictions may assume different qualities with regard to different systems. Moreover, the leading role of internal contradictions does not mean that external factors are necessarily to be ignored. Today, for example, mankind is coming increasingly under the impact of ecological contradictions. Specific treatment must also be given to the prerequisites and prospects of the revolutionary movement and of the victory of a socialist revolution in particular capitalist countries. In our epoch the capitalist system is gripped by a severe crisis and the development of the world is being all the more decisively influenced by socialist forces. In these conditions the success of the anti-imperialist struggle does not only depend on the internal development of a particular country, but also on the development of the world revolutionary process as a whole.

4. Major and Minor, Basic and Non-basic Contradictions

In complex natural and social systems there are many contradictory relations between elements, aspects and tendencies. One must therefore distinguish major and minor contradictions

in specific conditions. It may so happen that not only an internal but even an external contradiction may become a major one at a difinite stage of development. For instance, during the struggle for national liberation, the contradiction between the earlier oppressed nation as a whole and imperialism comes to the fore and becomes the major contradiction. The existing internal contradictions (between the national bourgeoisie and the working class, between the bourgeoisie and feudal elements, between the peasant masses and the bourgeoisie, etc.) do not disappear but unfold in the context of the people's common struggle against colonialism and foreign monopolies. Once a country has attained national independence, the function of the major contradiction is assumed by other contradictions, e.g., those between an advanced social system and a backward economy, contradictions between classes, between progressive and reactionary elements of society, etc.

We can see, then, that different contradictions may perform the function of the major contradiction. Yet among the contradictions of a particular thing, system or phenomenon there is also one that exerts a determining influence on its development at all stages. This is called the basic contradiction. It ultimately determines the unfolding of all the other contradictions in a system, being initial, primary in relation to them. The basic contradiction in animate nature, for example, consists in the 'struggle' between the processes of assimilation and dissimilation. This contradiction manifests itself in a specific form in any organism in the genetically determined type of metabolism that is typical to it, and in its concomitant internal and external organisation and functioning. It directly or indirectly determines all the other contradictory processes in an organism (its adaptation to the environment, its relation to the individuals of its own and other species, etc.).

The basic contradiction in the development of society is that between the productive forces and production relations. In capitalist society this contradiction is manifest between the social character of production and the private capitalist mode of appropriation. It is this contradiction that underlies the antagonism between the bourgeoisie and the proletariat, the contradictions between the organisation of production at an enterprise

and the anarchy of social production as a whole, the contradictions between different capitalist groups, etc.

During his visit to India in December 1980, L. I. Brezhnev pointed to her prominent role in history and commended on her emphasis on peace and stability, and singled this out as the reason why the Soviet Union attaches prime importance to its relations with India. At the 26th Congress of the CPSU Leonid Brezhnev pointed to India's growing role in international affairs, and to the steady strengthening of friendship between the Soviet Union and peace-loving, independent India, the friendship that 'in both our countries ... has become a deep-rooted popular tradition'. He also noted that the entire range of Soviet-Indian relations has advanced substantially further as a result of the recent negotiations in Delhi with Prime Minister Indira Gandhi and other Indian leaders.

The problem of the basic contradiction of modern times has today acquired particular importance. In relation to human society as a whole it is the contradiction between two social systems—socialism and capitalism. The struggle of these two opposing social systems comprises the main theme of our epoch—the transition of peoples from capitalism to socialism. It is the basic contradiction, for relations between the two world systems of socialism and capitalism are decisive for the development of all the other social contradictions of today (those between imperialism and the developing countries, between various imperialist states, between democracy and reaction, between the forces of war and peace, etc.). This basic contradiction of the modern epoch can only unfold and be resolved in the interests of progressive mankind through the peaceful coexistence of states with different social systems. An important contribution to the preservation of peace in the world is made by India which pursues a consistent anti-imperialist non-alignment policy.

5. Types of Social Contradiction

The classification of contradictions into basic and non-basic, major and minor, and internal and external, reflects their existence both in nature and society. Social contradictions deserve

a special mention. They always express certain relations among people, and refer to specific social subjects (social groups, classes, etc.), which become directly or indirectly included in the structure of these contradictions. Contradictions among people arise and exist by virtue of the relation between people and specific social objects, such as property, political power, national independence, ideology, culture, religion, freedom, etc. People may be interested in preserving and developing some contradictions and strive to block or remove others. What contradictions can be singled out in social life?

First of all, one can distinguish two types of contradiction by their social quality (the character of social relations); these are antagonistic and non-antagonistic. Antagonism grows from the social conditions of an individual's life and is ultimately based on the different relations between people and the means of production of material wealth. Antagonism is a relation of incompatibility between the fundamental interests of social subjects (above all the classes of the exploiters and exploited), engendered by private property and social inequality. Antagonistic contradictions include those between slaves and slave-owners, feudal land-owners and serfs, the bourgeoisie and the proletariat, imperialism and socialism, colonialism and the national liberation movement. By contrast, non-antagonistic contradictions reflect fundamentally different relations among people. These are contradictions among classes and social groups whose interests basically coincide but diverge in relation to separate social objects. Such, for example, are the non-antagonistic contradictions between the working class and the working peasantry.

Contradictions in society may also differ according to their subject and vehicle. They can be broken down in this respect into class, national, general human, group (e.g., caste) contradictions, and contradictions between social systems, states, political parties, etc.

In the social sphere there are economic, political and ideological contradictions, contradictions in mass consciousness, science, culture, everyday life, etc.

In their form of development and resolution social contradictions may be divided into social antagonisms and social distinctions. The former are the relations of conflict among people and

CLASSIFICATION OF CONTRADICTIONS

classes which are expressed in a direct clash of their fundamental interests. Conflict is struggle, fused with the more or less aware desire of the people, to overcome the objective opposition of their interests. Social antagonism expresses the utmost aggravation of contradictions, the people's struggle in society as a whole. Social distinction is a qualitatively different form of contradiction. It is the relation of discrepancy in people's interests with regard to separate social objects, which is determined by their social being. If social opposition is largely the state of antagonistic contradiction, then social distinction is the means of existence of both antagonistic and predominantly non-antagonistic contradictions. Social distinction is settled through various compromises (in class antagonistic societies) or through the planned adjustment of people's non-coincident interests (in socialist society), rather than through struggle.

Thus contradictions are manifest in widely diverse forms both in nature and society, their unfolding propelling the development of the objective world. The struggle of opposites underlies change in all things, the specific mechanism of this change being revealed in the law of the transition of quantity into quality and vice versa.

Chapter VII

THE LAW OF THE TRANSITION OF QUANTITY INTO QUALITY AND VICE VERSA

The essence of this law consists in the fact that 'merely quantitative differences beyond a certain point pass into qualitative changes'.[1] It is necessary therefore to clarify first of all the content of the concepts 'quality' and 'quantity'.

1. The Concepts of Quality and Quantity

There have been different opinions about these concepts in the history of philosophy. For example, they have not always been clearly differentiated. The old Indian philosophical system of Vaishesika dwelt among other things on the concept of quality (guna). According to the founder of this system, Kanāda, all the phenomena of the world resulted from various combinations of qualitatively heterogeneous atoms (material substances): elements of earth, water, air, light, and ether. Each of these had its specific quality: earth—smell, water—taste, air—touch, light—warmth, and ether—sound. Quality, according to the Vaishesika, was that which did not exist of itself, but only in substance. Quality was manifested only together with atoms and ceased to exist together with the destruction and ruin of elements. There were many different qualities, but, according to Kanāda, there existed twenty-four basic qualities of the atom. They included, apart from those indicated above, definiteness, pleasure, suffering, intensification, viscosity, number, magnitude and virtue.

[1] Karl Marx, *Capital*, Vol. I, p. 292.

The Vaishesika school did not identify quantity as an independent category, but considered it as a special type of quality. The category of quality itself, as we can see, was still closely connected with the direct sense perception of concrete, corporeal things.

While mechanistic views on the world were predominant qualitative differences between phenomena were ignored, and reality was largely interpreted in quantitative terms. Some philosophers, for example, did not make essential distinctions between living organisms and inorganic bodies. Among them was the French materialist La Mettrie (1709-1751) who wrote the book *L'Homme-machine.*

Among the opponents of materialism, subjective idealists did not recognise any qualities outside man's perception, while objective idealists, such as Hegel, interpreted quality and quantity merely as forms of modification of the Absolute Idea.

In actual fact, however, the categories of quality and quantity express the multiformity of matter in motion, spatial-temporal connections and relations between objects and phenomena, their distinctions and factors in common. Quality is a stable and integral totality of the essential features of a thing taken in a certain definite relation to other objects of reality. We must clarify here that by an object (thing) we understand all that to which our thought is directed (bodies, phenomena, processes, etc.). Things exist objectively, of themselves, independent of whether or not we know them. Also objective are qualities inherent in things. These are manifested in the relations of things with one another. A thing possesses different qualities with regard to different things. It is therefore multi-qualitative.

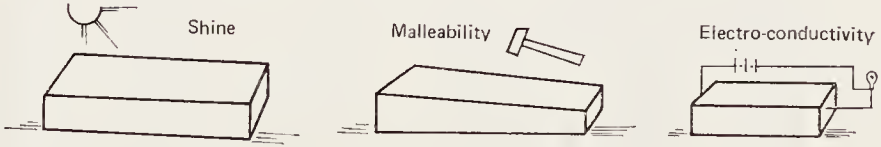
Property is the mode in which the quality of an object is manifested in relation to other things. It is any feature that inheres in a thing. Quality is something that cannot be separated from the very existence of a thing, while properties a thing may lose or acquire without ceasing to exist as a specific material formation. At the same time, the difference between quality and property is relative. What appears as the property of an object in one relation may appear as its quality in another.

Let us take diamond as an example. It is harder than all known substances. This is its quality when it is used as abrasive material.

QUALITY AND PROPERTIES

Quality is the internal structure of objects and phenomena, that which differentiates them from other objects and phenomena and is inherent to them

Property is an outward manifestation of a quality when it interacts with other phenomena

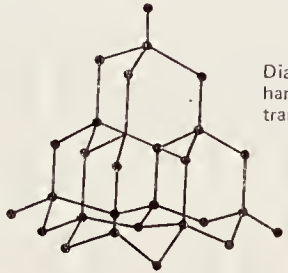


A thing 'is an assemblage of many properties, and may therefore be of use in various ways. To discover the various uses of things is the work of history.'

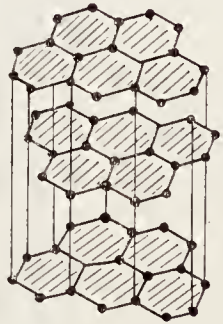
Marx

Qualities differ in their properties

A diagram showing the location of carbon (C) atoms



Diamond
hard
transparent



Graphite
soft, grey

In a graphite crystal carbon atoms lie in layers which are tenuously connected with one anoher, may slide over each other and tear away from the crystal. That is why graphite is used in drawing and for lubricating friction surfaces

This quality can be manifested, say, in polishing glass. A diamond could not be used as an instrument if it were not hard. However, in this specific relation (the processing of other substances) the properties of diamond that are in general inessential and may be different are its colour (in nature diamond occurs as separate crystals that are either colourless or tinged with admixtures) and its origin (diamonds may be obtained synthetically from carbon compounds at high temperatures and pressures), form, etc. If, however, diamond is considered as a precious stone what matters is not so much its property of hardness as its ability to undergo faceting, have different colours, etc. When, finally, diamond is considered from the angle of its chemical structure then its hardness, colour, ability to be faceted and other properties prove inessential, for in this case the main thing is that diamond is an allotrophic modification of carbon. In the chemical respect, therefore, diamond, graphite and coal all represent the same quality, manifested in the relevant properties of carbon in the specific chemical reaction.

The concept of quality thus serves to express:
a) integral properties of an object, b) its stability, c) its relative immutability, d) its specific differences from other objects, e) its definiteness which is inseparable from its existence.

What is quantity? This concept should be considered in its connection with the category of quality. First of all, unlike the integral characteristic of a thing as given by the concept of quality the category of quantity expresses the definiteness of an object from the angle of its individual properties or features. In this way the degree of development of these properties is amenable to measurement and comparison with their manifestation in other objects. Natural bodies may, for example, possess a definite velocity, temperature, weight, volume, etc. The category of quantity records changes in the object's separate properties that are common to those of other things. Quality is inseparably bound up with the very existence of a thing, while quantity is at first glance something extraneous to its existence. Copper retains a definite aggregate state of solidity whether it is heated to a temperature of 100° or 300° Centigrade. The table at which you are reading may be large or small but it does not cease to be a table because of this.

The most important characteristics of quantity are number and magnitude. The former is historically bound up with the operation of counting, the latter with the procedure of measuring bodies by a definite yardstick. The concepts of number and magnitude have developed in step with the development of mathematics. At present mathematicians distinguish natural, material and complex numbers, quaternions, etc. The concept of magnitude includes both ordinary (scalar) magnitudes and vectors, tensors, etc. With some reservations quantity may be taken to mean an object's definiteness that can be expressed by number and magnitude. However, it would be wrong to completely identify quantity with these mathematical concepts. It is far from possible to express all quantitative differences in terms of number and magnitude; this is obvious, in particular, from the limited applicability of mathematical methods to the analysis of many social phenomena and processes. What cannot be expressed in formulae, for example, is the level of revolutionary sentiment and consciousness of the masses, the degree to which the class struggle is acute in a society, the degree to which cultural values have been assimilated, the aesthetic impact of works of art, difference of religious sentiment, etc.

2. The Transition of Quantitative Changes into Qualitative Distinctions

Quantity and quality, as follows from the above, are opposite. Yet there is also a relation of dialectical unity between them. It is only at first glance that quantity seems to be unconnected with the nature of an object. In actual fact, however, each thing does not only have its own quality but also its own quantitative properties. A water molecule consists of two atoms of hydrogen and one atom of oxygen, and a molecule of sodium chloride consists of one atom of sodium and one atom of chlorine. Different colours of the solar spectrum are based on different wave lengths and oscillation frequency: the length of a red light wave is less than one ten thousandth of a centimetre, the length of a violet light wave is twice as small. The temperature of man's body is 36.6°C and deviations from that are only possible within 28° and 42°C; outside these bounds the human organism cannot live and function. When

copper is heated to 1,083°C its aggregate state changes from solid to liquid. These and other examples convince us of the existence of a link between quantity and quality. Their unity is expressed in the concept of measure.

Measure points to the lower and higher bounds of a possible quantitative change with a given quality, indicating the boundaries of change in the quantitative definiteness of a thing, in which it remains itself. Everything has its measure, i.e., a definite correlation between quantity and quality. Within measure quantitative changes are not attended by changes in the quality of the object. When this measure is upset, however, and its bounds overstepped, quantitative changes entail the qualitative transformation of a phenomenon. The new phenomenon in its turn has its own measure, a specific unity of qualitative and quantitative characteristics. It again undergoes quantitative changes that ultimately lead to new qualitative distinctions. This process can be expressed with the image of a nodal line of measures as a unity in the development of the moments of continuity and discontinuity. The former implies retaining of a thing's stability, quantitative changes within a given measure, while the latter is a disturbance of the measure, qualitative changes and the emergence of a new thing. The dialectical law here discussed registers this unity of the opposite definitenesses of the motion of matter.

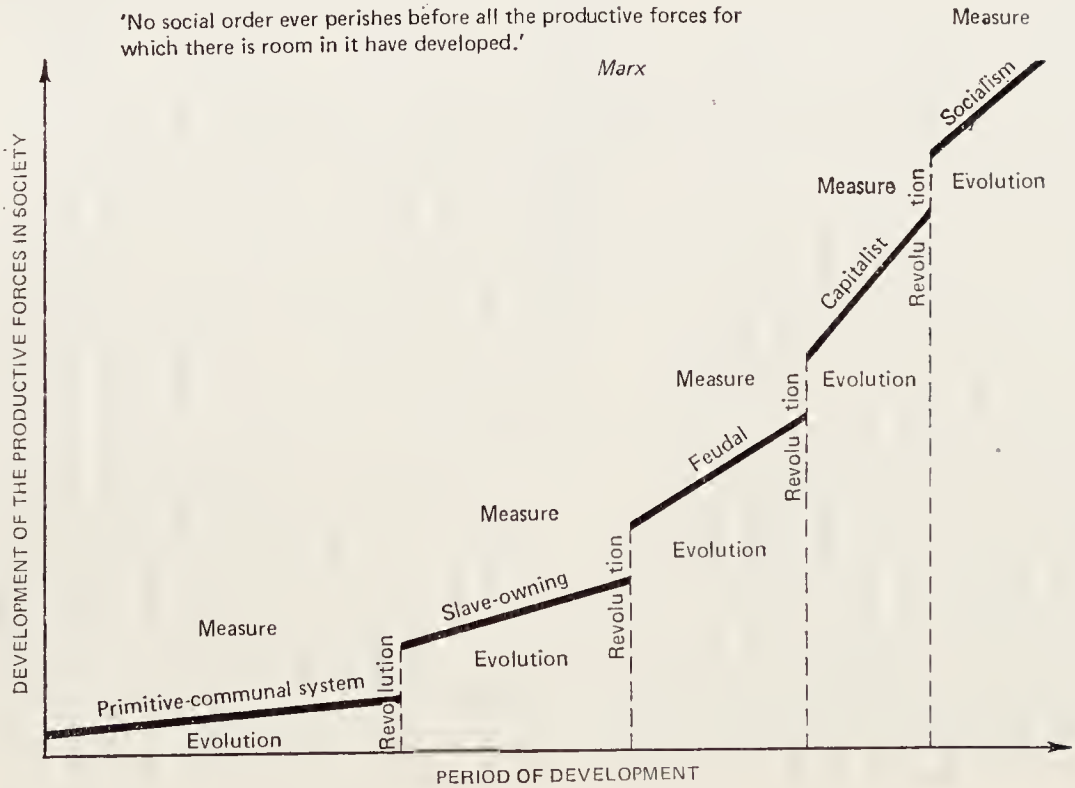
'...In nature,' wrote Engels, 'in a manner exactly fixed for each individual case, qualitative changes can only occur by the quantitative addition or quantitative subtraction of matter or motion (so-called energy).'[1] Specifically, the quality of an object is transformed through changes in the quantity of substance, energy or information, when substance and energy are redistributed in the objects themselves, when structural elements change in a thing and new elements arise, etc. When water is heated or cooled and its energy changes, e.g., when it attains a certain temperature, its aggregate state changes: it turns into steam at 100°C and into ice at 0°C. An example of qualitative changes as brought about by changes in structural elements is the appearance of substances with various properties resulting from changes in the number of atoms of one and the same chemical element in a molecule. Thus

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

NODAL LINE OF MEASURES IN SOCIAL DEVELOPMENT

'No social order ever perishes before all the productive forces for which there is room in it have developed.'

Marx



Each new formation provides greater scope for the development of the productive forces than the preceding one

two atoms of nitrogen and five atoms of oxygen from a solid body—nitric anhydride (N_2O_5), while two atoms of nitrogen and one atom of oxygen produce a compound called laughing gas (N_2O).

With the emergence of qualitative distinctions we can also observe a reverse transition in the course of quantitative changes, i.e., that of quality into quantity or, to be more exact, qualitative changes leading to new quantitative characteristics and changes. We know, for example, that a new chemical element appears as the atomic charge increases, but this new quality also has its own quantitative characteristics. An increase in the charge of the sodium atom nucleus by one, for example, makes it into magnesium, whose quantitative properties differ from those of sodium: it is bivalent, unlike the univalent sodium, has a different density and melting and boiling points, its metallic properties are more weakly expressed, it is chemically less active, etc. The same interconnection of qualitative and quantitative changes can also be observed in life processes. A living organism grows because of the division of its cells. But division of a material cell into two filial ones is a complex process. A cell does not divide when it has grown to a certain size, but when various qualitative changes have taken place within it (in its nucleus, mitochondria, cytoplasm, etc.). Only when certain qualitative changes have taken place in the various elements of a cell does a partition appear within it, and it is thus divided into two.

Transitions of quantity into quality and back can also be illustrated with examples from social development. Socialist revolution comes about as a result of an accumulation of quantitative changes (the development of the productive forces, the exacerbation of social antagonism, the enhanced organisational capacity of the working class, the growing activity of the working masses, etc.). The new social quality that appears as a result of revolution (socialist production relations based on the social ownership of the means of production, planned economic development, socialist democracy, social equality, etc.) conditions in its turn changes in the quantitative parameters of various aspects of social life, such as the rate of development of the productive forces, people's standard of living, education, etc. Suffice it to refer to these facts: the Soviet Union today produces as much industrial

output in two and a half days as the whole of prerevolutionary Russia did in 1913, and produces more than the whole world did a quarter of a century ago. The tremendous economic growth of the world's first socialist country stems from qualitatively new social relations and results from the emancipation of labour.

3. The Leap and Its Forms

Quantitative changes usually occur continuously, gradually and take place over a long period. Qualitative changes, on the other hand, always mean a break in the continuity and gradual development in some respect, as they express a transition to a new measure, a new phenomenon. Thus a qualitative change in a thing should always be regarded as a kind of a leap in development, and the whole process of development and motion appears as the unity of continuity and discontinuity, gradualness and leaps. The concept of a leap is very important in the dialectico-materialist world view. In the dialectical conception of development it is used to express that a) the qualitative change in anything results from preliminary quantitative changes that are indispensable for a new quality to emerge; b) that these changes, preparatory to a leap, are based on contradictions appearing in the development of a thing; c) that a qualitative change does not mean a quantitative addition to or subtraction from what already exists, but a radical transformation of the existing thing resulting in the disappearance of the old and the appearance of a new phenomenon with its own measure of qualitative and quantitative properties.

The main thing is that the old becomes the new only in the process of a leap, and as a result of it. The forms of the leaps themselves may differ. Leaps often occur as an abrupt elimination of the old quality, with quantitative changes sharply and quickly upsetting the existing measure at a definite point in time and bringing about a new quality. If one proton is added to or subtracted from the atomic nucleus this immediately causes its transformation into a nucleus of a qualitatively different chemical element. Water turns into vapour in the form of a sharp leap. Changes in the organism's hereditary characteristics, brought about by mutations, are also an example of such a leap. The overthrow of the exploiters' power by an armed uprising of the

popular masses is also a sharp leap in social development.

However, leaps may also occur in a different way. Radical qualitative changes often take a relatively long time to occur and include many lesser leaps. In this case one quality converts into another gradually. The boundary between the old and new measures is not so sharply expressed, but it does exist, as this process also incorporates a moment where there is a break in development. Such are, for example, leaps conditioning changes in the geographical environment, the formation of deserts, the swamping of lakes and ponds, the pollution of seas and oceans, the formation of peat, coal, oil, and other minerals. It took millions of years for a tremendous leap in the development of matter to occur, i.e., for man to emerge and the transition to be made from the animal world to society. Qualitative changes in the development of language also occur gradually. Many modern languages in India, e.g. Hindi, have ancient Sanscrit as their source, but they sharply differ both from one another and from Sanscrit. The transformation of Sanscrit into other languages in the course of historical development is a qualitative change, a leap. But this leap took place gradually; this is because language is a means of communication among people and each new generation must assimilate the language that is already used by society. Qualitative changes in the development of language that take hundreds and thousands of years to emerge, are brought about by many changes in the vocabulary and grammar of the language caused by the development of the whole of social life. With the emergence of a new quality the measures are changed as a result of many tiny discrete changes; this complicates the definition of the moment of the radical qualitative transformation.

The forms of qualitative changes depend on the features of the objects themselves and on the conditions in which they exist. A leap occurs differently, for example, when water evaporates from a river and when it is heated in a hermetic boiler. In the first case it is a gradual process, in the second a sharp and explosive one. The radioactive decay of chemical elements in natural conditions also differs from similar processes in atomic reactors where nuclear matter is destroyed much quicker in an artificial way, emitting a tremendous amount of energy all at once.

4. Revolution and Evolution

Revolution is a special form of a leap typical of social life only. It 'is a change which breaks the old order to its very foundations, and not one that cautiously, slowly and gradually remodels it, taking care to break as little as possible.'[1] Leaps in social development may be manifested in different ways: in the gradual transformation of some qualities into others (as was the case, for example, in the transition of capitalism from its pre-monopoly stage to imperialism), in the reforms carried out 'from above', in counterrevolutionary coups, in crises and wars, etc. Revolution differs from all such leaps in that a) it is a comparatively sharp qualitative change in the foundation of the existing social relations; b) in direction it is a radical progressive change of social life, and c) it is opposite to evolution as a form of development.

In relation to society the concept of 'evolution' expresses the gradual change that takes place in society with its basic qualitative definiteness remaining intact. Thus capitalism evolved into the monopoly stage—imperialism—from the pre-monopoly stage. Yet throughout its development capitalism has preserved the essential features of the bourgeois mode of production, such as the dominance of capitalist property, the contradiction between labour and capital, unemployment, crises, etc., which distinguish it in quality from all other socio-economic formations. The evolutionary form of development is accompanied by certain qualitative changes, but within the framework of one and the same social measure (the specific type of social relations). Insofar as the evolutionary period is marked by certain qualitative changes, this form also includes breaks in continuity and various leaps. At the same time, vis-à-vis revolution, evolution always manifests itself in the form of quantitative changes of a given fundamental quality. Evolution and revolution are therefore interconnected: evolutionary development necessarily leads to revolutionary, radical changes, while revolution completes the

---

[1] V. I. Lenin, 'The Importance of Gold Now and After the Complete Victory of Socialism', *Collected Works,* Vol. 33, Moscow, 1966, p. 110.

evolutionary period within a given social quality and is the beginning of a new type of evolution. This is true with regard to different kinds of revolution: in the productive forces, the economy, science, culture, etc. A correct understanding of the correlation of evolution and revolution is of special importance in the practice of social revolutions (bourgeois-democratic, national liberation, socialist, etc.).

Any attempt to contrast these two necessary forms of development in society is untenable in theory and harmful in practice. The metaphysical conception of trite evolutionism, for example, is the philosophical basis for opportunism and reformism which negate leaps and revolutions in development. It is erroneous to assert that capitalism can grow into socialism in a purely evolutionary way. After all, the changes undergone by capitalism on the eve of a socialist revolution are but quantitative changes in relation to that revolution and the resultant socialist system, since capitalism, as a special formation, remains one and the same. The fundamental qualitative differences in the social relations of capitalism and the emergence of a new system are only possible in the course of a socialist revolution, as a result of the establishment of the dictatorship of the proletariat, the abolition of private property, the socialisation of the means of production and other socialist transformations. While believing that socialist revolution is indispensable for a transition from capitalism to socialism the Communists also take account of the many specific forms in which it is accomplished (using the institution of bourgeois democracy and other peaceful means or an armed uprising).

Anarchism and leftist adventurism ignore the possibility of accomplishing socialist revolution by relatively peaceful methods; they make an absolute of the methods of armed struggle and deny the role played by evolutionary development in the preparation of qualitative social transformations. Materialist dialectics considers such views to be as one-sided and, consequently, metaphysical, as conceptions of trite evolutionism.

The development of reality can be comprehended in all its fullness and multiformity only in the unity of quantitative and qualitative changes, evolution and revolution in social processes, continuity and discontinuity, gradualness and leaps. As development is realised through the struggle of opposites and the transition

of quantitative changes into qualitative distinctions, it thereby contains its own essential and necessary moment of the negation of the old and the emergence of the new. The leading trend in the ongoing qualitative changes and the link between the different stages of development are determined by the action of the law of the negation of negation.

Chapter VIII
PROGRESS AND RECURRENCY IN DEVELOPMENT

From the historical and logical angles, the problem of negation drew the attention of philosophy at its very inception. This can be seen in the ancient thinkers' interest in the correlation of being and non-being, existence and destruction. The problem was lively discussed in ancient Indian philosophy. According to the Vaishesikas, being is correlated with various kinds of non-being or negation, such as previous non-being, the non-being of a thing resulting from its destruction, the non-existence of one thing as another, etc. Heraclitus, Democritus, Plato, Aristotle and other Greek thinkers considered the problem of being and non-being from different philosophical positions. In late periods, too, the essence of negation and its role in the existence and change of things was studied by many philosophers, notably by Spinoza, Kant and Hegel. All these interpretations of negation were ultimately related to particular notions of the character of changes taking place in reality, of the development of the world.

1. Circulation or Progress?

Different answers were given to the question as to what happens in the world when things disappear and events replace one another. Many philosophers identified negation with the simple destruction of things. They inferred from this that real development was impossible in the world. Many believed in ancient times that man's Golden Age was a thing of the past and all subsequent history was a constant movement along a descending line, a continuous regression. Such a view on the world was held, for example, by the ancient Greek poet Hesiod (8th century B.C.) who said that the age of human happiness, the Golden Age,

was far behind and evil was inevitable and impending, as it was sent down by Zeus. This pessimistic doctrine expressed the desperate state of small landowners exploited and oppressed by the clan nobility during the disintegration of the primitive-communal system.

Along with such notions of social regression there existed the conception of the eternal circulation of world events. Such was the Indian idealistic doctrine of samsara, or the reincarnation of the soul, whereby man was fatally doomed to an eternal circulation of empirical existence and his constant resurrection in it in conformity with his deeds in previous lives. Many other philosophical doctrines in India also assumed a cyclic nature, the eternal circulation of successive stages, states and periods of the Universe that were consecutively regressing and formed one cosmic day of the creative Deity, Brahman.

In more recent times the idea of the historical process as an eternal circular movement was advanced by the Italian scholar Giovanni Battista Vico (1668-1744). He believed that society was continuously completing recurring rotations: a period of childhood, dominated by a religious world outlook and despotism; followed by a period of youth, dominated by aristocracy and knighthood; and ultimately followed by a period of maturity, when science and democracy flourished and society was at the same time moving backwards, into decline. This period of decline was again replaced by a period of childhood, the latter by a period of youth, and so on *ad infinitum*. Vico regarded the capitalist system existing in Europe at that time as the mature period of society's development, thus essentially recognising bourgeois society as the highest point, the peak of mankind's development, since a new cycle, according to him, was bound to begin with primitive forms of social life.

These concepts of regression and circular movement interpreted development in a one-sided way. Their proponents ignored the moment of continuity in negation. The exaggeration of this moment, however, as propounded in theories of straightforward progress, is no less erroneous. Such theories prevailed in the social philosophy of the rising bourgeoisie, full of optimism and belief in the immutable and eternal capitalist order. According to the French sociologist Condorcet (1743-1794), for example,

history was a way of straight ascent on the basis of an unlimited perfection of people's knowledge and abilities. The bourgeois system was proclaimed as the acme of reasonableness and 'naturalness' and to capitalism was attributed an ability for indefinite progress.

Modern bourgeois philosophy and sociology are replete with various modifications of these conceptions of development. The conception of straightforward progress forms the philosophical basis for the currently fashionable theories of the 'post-industrial', 'technotronic' and other societies. Pessimistic views have also become widespread. Indicatively, at the 16th Congress of Philosophy many bourgeois philosophers denied that reason should be considered an indispensable element of modern progress. Ideas of progress, of social development, are again put to doubt. Wide currency is given to the reactionary prophecies of Nietzsche (1844-1900) and Spengler (1880-1936) on the collapse of civilisation and the advent of nihilism, on the termination of all progress. Ideas of historical circularity are revived, as is evident, for example, from the doctrine of the English historian Arnold Toynbee on the circulation of civilisations. According to him, mankind's history does not evolve on an ascending scale but represents a number of simultaneously existing civilisations. Each of them emerges, develops, declines and finally dies.

The dialectical view of the world stands opposed to any such one-sidedly metaphysical conceptions of development. We have already noted that materialist dialectics is the most comprehensive and profound teaching on the development of the objective world. 'A development that repeats, as it were, stages that have already been passed, but repeats them in a different way, on a higher basis ("the negation of negation"), a development, so to speak, that proceeds in spirals, not in a straight line'[1]—in these words Lenin revealed an essential feature of the dialectico-materialist world view. The key to understanding this feature of development lies in a correct interpretation of the essence of the category of negation. It is a central category in Marxist-Leninist philosophy. What does dialectics mean by negation?

---

[1] V. I. Lenin, 'Karl Marx', *Collected Works,* Vol. 21, Moscow, 1977, p. 54.

2. Negation as the Most Important Element of Dialectics

Negation is often treated as a purely logical operation and many philosophers consider it wrong to use the concept of negation outside consciousness. Some of them justify their view by arguing that being is always positive, while non-being (which is often equated with negation) does not exist at all. Is this really so? Without providing a specific treatment of the opposition of being and non-being, we shall simply point out that the dialectical solution to the problem consists in the fact that the one is being constantly transformed into the other, since everything is becoming, developing, or passing away. In this way all that exists as being also contains non-being, i.e., is the unity of being and non-being. As materialists see it, non-being is only possible in respect to specific material formations (entities), rather than to objective reality as a whole. Matter is indestructible and uncreatable. Moreover, it would be wrong to interpret non-being itself as an abstract nothing. Non-being is always the non-being of something, of something concrete. It is therefore in essence 'other-being' and not some 'flaw' in being. Furthermore, by no means does materialist dialectics identify the concepts of negation and non-being. The meaning of the former category becomes clear when we consider what we have said above about the contradictions and qualitative changes in development. The very content of dialectics as a doctrine of development includes, as its indispensable element, the recognition of the negation of the old and the generation of the new.

The unfolding of objective contradictions leads to their resolution, to a qualitative change in phenomena, the transformation of things into their opposites and consequently to a break in continuity, the destruction of some and the emergence of other material entities. By negation materialist dialectics means the process whereby a thing is transformed into something essentially different by virtue of the internal and external contradictions endemic to it. The role played by dialectical negation in this development is to complete it within the framework of the old quality and to usher in the existence of a new thing. Without

negation (and the leap that is closely connected with it) matter would indefinitely remain in one and the same form. Without negation there could be no development and transition from the lower to the higher. 'In no sphere,' wrote Marx, 'can one undergo a development without negating one's previous mode of existence.'[1] One should note here that negation is not paralleled by the action of other laws of dialectics, but is closely linked with them. Negation becomes possible in the process of development only as a result of the transition of quantity into quality and the struggle of opposites. Where quantitative accumulation has not been completed and contradictions have not yet matured, however, there is no negation as a real process. It is therefore useful to distinguish the concepts 'negativeness' and 'negation'. The former is nothing but the self-contradictoriness of a thing, the unity of its opposite and negative aspects, while the latter expresses the real act of its qualitative change. Since contradictions have objective and universal characteristics negation should be regarded as a necessary and universal moment of development.

In inorganic nature, for example, negation is manifest in the cosmogonic activity of the nuclei of the galaxies, i.e., in the explosions, disintegration and formation of stars and stellar associations, in the mutual transformations and annihilation of elementary particles, in the erosion of rock as caused by various external factors, such as water and wind, in the dissociation and combination of molecules in chemical reactions, and so on. Negation is also a necessary moment in animate nature. Many organic forms have disappeared in the process of evolution, being superseded by new forms that are better adapted to the changing conditions. And in the development of separate organisms, life is impossible without its opposite, its negation—death. In society, negation is most sharply expressed in the many and varied revolutionary changes both in the past and present.

Negation is based on unfolding contradictions and is therefore regarded in materialist dialectics as the self-negation of a

---

[1] K. Marx, 'Moralising Criticism and Critical Morality'. In: Karl Marx and Frederick Engels, *Collected Works,* Vol. 6, Moscow, 1976, p. 317.

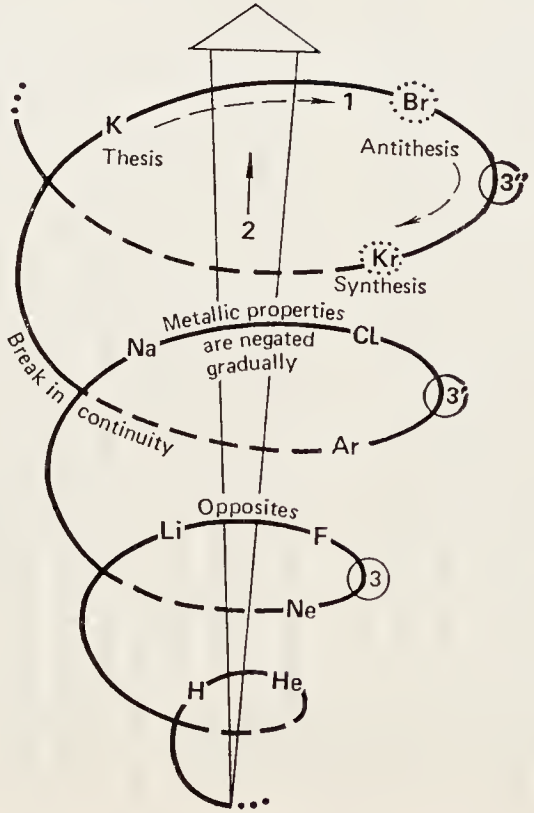
LAW OF NEGATION OF NEGATION

THE SPIRAL ILLUSTRATES THREE INTERCONNECTED ASPECTS OF THE LAW

1. Continuity in development

2. Progressive nature of development

3. Cyclic nature and repeatability at a higher level



MENDELEYEV'S PERIODIC SYSTEM CLEARLY EXHIBITS THE THREE ASPECTS OF THE LAW

Each following element includes the preceding element while partially negating it

From the first to the last period the elements and their properties grow more complex

Periodicity in the recurrency of the properties of elements at a higher level. Metallic properties become more pronounced from period to period

thing, a special level or stage of its own development. The capitalist mode of production, for example, exacerbates its own contradictions as it evolves and thus makes its own destruction objectively possible and necessary. It also creates the social force—the proletariat—that must become its grave-digger and the bearer of a more progressive, socialist mode of production. It is in this sense that the capitalist system negates itself, being as subject to natural laws as any natural-historical process.

This example also brings to light other features of dialectical negation. For instance, it is contradictory in its results: it is the unity of destruction and emergence, of non-being and becoming. The self-negation of capitalism is simultaneously the assertion, the establishment of another, opposite social system—socialism. Another conclusion that follows is that negation in dialectics has a definite content. It is not the transformation of a thing into abstract nothing, but its transformation into 'its other' *(seine Andere)*. In the course of proletarian revolution capitalism is negated by a quite definite social system—socialism, rather than by any other system. There is moreover a necessary connection between the negated and the negating: the new mode of production retains the productive forces created at previous stages of the development of society.

3. Concreteness of Negation

Negation always has a certain defined content and is therefore concrete, specific. This means that the mode of negation depends on the nature of the phenomenon and on the conditions in which its development occurs. 'Every kind of thing therefore,' wrote Engels, '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] The varied manifestations of dialectical negation can be broken down into three main types.

Most important is the so-called 'sublation' (*Aufheben*), i.e., the negation of a thing retaining some of its elements and structural links in the new phenomenon; these are incorporated in the

[1] Frederick Engels, *Anti-Dühring*, Progress Publishers, Moscow, 1978, p. 173.

new quality as components of its organic whole. Negation in the form of sublation means a simultaneous overcoming and retaining of what is negated, overcoming in form and retaining in actual content. Characteristically, sublation is clearly manifest as the moment of connection, of development, retaining everything positive. The new thing that comes about as a result of this 'retaining everything positive' necessarily appears as a higher and 'richer' stage of development. In the processes of inorganic nature this kind of negation, for example, appears as the retention of the earlier formed electronic layers coupled with a further complication of the atomic structure in a series of chemical elements. Animate nature consolidates the results of evolution in the stability of existing and emerging kinds of organism. The development of society is ensured by the continuity of human generations, of productive forces and social factors assuming the form of sublation. In the cognitive process relatively true knowledge is specified and developed in the form of sublation.

One modification of sublation is transformation, which may be set apart as the second type of dialectical negation. To this type belong processes that preserve the very basis, the core of a thing rather than 'retain' its separate elements. In this case the lower gradually overgrows and is converted into the higher, which happens during the transition from one stage in the development of a system to another. The germination of a seed of rice is its negation. This negation is expressed in its transformation into a sprout and stalk; in turn the continuing transformation subsequently gives rise to hundreds of rice seeds. Transformation also applies to many social processes, such as the conversion of pre-monopoly capitalism into imperialism, the growing over, under socialism, of the state of proletarian dictatorship into a state of the whole people or, on the personal plane, the moulding of the individual as a child becomes an adult.

The third type of dialectical negation comprises those qualitative changes in things that are termed 'disintegration', 'decay', 'destruction', 'explosion', 'elimination', 'ruin', 'disappearance', 'degradation', 'withering away', etc. This is so-called destructive negation or destruction. Under destruction the moment of the 'retention of the positive' either does not exist at all or is ma-

nifested to a negligible extent. Destruction means the termination of the existence of a specific object and can express an impasse in some direction of development. Such negation may also result from an external influence on a given system which destroys its structure and eliminates it if the force of the influence exceeds the energy of the system's internal connections. Many processes in inorganic nature are destructive. Destructive negation is especially essential in the animal and vegetable worlds. The relation of food and its consumers (plants and phytophagas, carnivorous animals and their prey) is after all nothing else but the relation of destruction. If elimination, destruction, death and other destructive processes are regarded on the scale of universal connections between material objects and with an eye to existing types of negation rather than as isolated acts, they prove to belong to development itself rather than being outside its bounds; they are the necessary moments of development without which the latter is quite impossible.

Identifying the different types of negation, viz. sublation, transformation and destruction, makes it possible to gain a deep insight into the opposition of dialectical and metaphysical notions of negation. In nature any negation is dialectical if it is considered without reference to man. It is a different matter in society, because this is the scene for the actions of people who realise particular negations. People's acts, however, may not, within certain limits, correspond to the objective laws governing the development of a particular social phenomenon, either because they do not know these laws or because they have a vested class interest. In relation to people's consciousness and acts, therefore, we can and must use the concepts of dialectical and metaphysical negation.

Non-dialectical negation is purely subjective, 'empty' and 'futile'. This is the view of negation taken, for instance, by adherents to 'negative dialectics' (Theodor Adorno, Herbert Marcuse and others). They raise destruction into an absolute, and turn negation into an act of universal renunciation, robbing it of any positive content. So-called 'nihilism' reduces all negation to simple destructiveness and preaches negation for its own sake. Nihilism can assume different forms, such as the destruction by the hongweibings of cultural monuments, disguising this with

'revolutionary' rhetoric, the passive rejection of existing reality by hippy groups, the 'total negation' practised by all kinds of left-wing extremist and pseudorevolutionary elements, the boundless scepticism of desperate people, and acts of barbarism and genocide.

Bourgeois publications often portray Communists as destroyers and 'nihilists' who are incapable of creative work. This is a shameless lie, of course, for socialism, while negating everything reactionary and obsolescent, preserves all that is valuable for the development of a new society. 'We must take the entire culture that capitalism left behind,' Lenin wrote, 'and build socialism with it. We must take all its science, technology, knowledge and art. Without these we shall be unable to build communist society.'[1]

While criticising nihilism it would nevertheless also be wrong to go to the other extreme by trying to look for something 'positive' in any negation. It would be a departure from the dialectico-materialist demand of concrete negation. It so happens that in the interests of social progress it is sometimes necessary to resolutely eliminate some social phenomenon without looking for any 'positive' aspects in it, since it is on the whole incompatible with the requirements and ideals of progressive social forces. In the developing countries, for example, destructive negation must be applied to the vestiges of colonialism and feudalism, the more so the still extant elements of the slave-owning system, as well as to class and caste prejudices, etc.

4. The Universal Law of Development

Having elucidated the opposition of the dialectical and metaphysical approaches to the concept of negation we can now consider the essence of the negation of negation as the universal law of development. Dialectical negation, as we have shown, gives rise to a qualitatively new phenomenon which is in its turn inherently contradictory and is consequently itself negated at some stage. The questions that naturally arise with regard to this

---

[1] V. I. Lenin, 'The Achievements and Difficulties of the Soviet Government', *Collected Works*, Vol. 29, Moscow, 1965, p. 70.

are: Is there a regularity in this series of successive negations? What is the general trend and form of the whole process of qualitative changes?

The first scholar who tried to answer these questions was Hegel. He was the first to coin the term 'negation of negation', using it to denote a special law of development. According to Hegel, any definition of the Absolute Idea was contradictory, contained a negation in itself and therefore turned into its opposite.[1] In turn, the definition (category) opposed to the first was itself subject to negation. Since the second definition was a negation of the starting point its own negation already appears as the 'negation of negation'. Thus, development as a whole assumes a form of movement from the starting point (thesis) through its negation to the negation of negation. What takes place at the stage of the negation of negation, according to Hegel, is a return to the starting point, on the one hand, and an enrichment of the idea, on the other; for the negation of negation is the highest synthesis of positive and negative definitions or attributes. As in several other cases, Hegel here guessed some features of the objective dialectic of things in the dialectic of concepts.

The founders of dialectical materialism discarded the idealist interpretation of the category of negation, and Hegel's schematisation, and revealed the true meaning of the negation of negation as an element of dialectics. The content of this universal law of development can be briefly expressed in the following way: a) any development is represented as a number of stages linked with each other in such a way that one is the negation of the other; b) the processes of dialectical negation synthesise the positive aspects of the preceding stages of development, which gives rise to the continuity between the new and the old qualities; c) this continuity enriches the whole process, giving it the character of an ascending, progressive movement; d) there is relative recurrency, and presumably, returns to the old in the process of development, which are explained by the mutual transition of opposites in the process of consecutive negations.

[1] One should remember here that for him development assumed the form of a self-unfolding of the concepts and categories contained in the Absolute Spirit.

Thus, development in nature and society and the process of cognition can more adequately be expressed using the symbol of a 'spiral' rather than a straight line. This symbol covers such aspects of development as its progression, the unity of progressive and regressive changes, quasi-recurrency, and the relative completeness of individual cycles.

Here are some illustrations. In inorganic nature the negation of negation is more vividly expressed in the evolution of chemical elements. As the atomic nucleus and atomic shell become more complex in structure the chemical properties of chemical elements periodically repeat themselves to some extent, as follows from the Mendeleyev periodic law of chemical elements. The recurrency of these properties is explained by recurrent electronic configurations in the process of regular increase in the number of electrons in the atomic shell. In biology, the negation of negation is expressed in the organism's reproducing, in its individual development, the major stages in a shortened form, in the development of its species and the history of its more or less distant ancestors. The human embryo, having begun its life from the fertilised ovum, passes in its embryonic development, as it were, through the main stages of the animal world (it has gills at an early stage, has a tail, etc.). After the child is born the development of its organism continues. At the same time, the biological process is superimposed by the social process: a child masters social heritage, i.e., language, work habits, intercourse, etc., by communicating with people and through its upbringing. Here, too, a child repeats in its development, as it were, the main stages in the development of labour, thought and language.

The development of social phenomena through the negation of negation can be illustrated by the example considered by Marx in *Capital*. During the emergence of the capitalist mode of production the labour property of small producers was expropriated. The peasants' ownership of the instruments of labour, land, and small production as a whole, was negated by large-scale capitalist production based on the exploitation of other people's labour. As for bourgeois society itself, it developed towards the concentration of capital, the centralisation of the means of production and the socialisation of labour; finally

EMBRYOS OF VERTEBRATES AT DIFFERENT STAGES OF DEVELOPMENT:
1 – fish; 2 – lizard; 3 – rabbit; 4 – man

these reached a level where they became incompatible with bourgeois relations of production. 'The knell of capitalist private property sounds,' Marx said. 'The expropriators are expropriated.

'The capitalist mode of appropriation, the result of the capitalist mode of production, produces capitalist private property. This is the first negation of individual private property, as founded on the labour of the proprietor. But capitalist production begets, with the inexorability of a law of Nature, its own negation. It is the negation of negation. This does not re-establish private property for the producer, but gives him individual property based on the acquisitions of the capitalist era: i.e. on co-operation and the possession in common of the land and of the means of production.'[1]

[1] Karl Marx, *Capital*, Vol. I, p. 715.

5. Dialectics and the 'Triad'

One should note that the opponents of Marxism often give a distorted interpretation to this citation by identifying materialist dialectics and the method of dialectical materialism with the so-called triads. But to reduce the negation of negation (the more so all dialectics) to the triad is an absurdity. The triad is a cyclical development according to a strictly defined formula of affirmation (thesis), negation (antithesis), negation of negation (synthesis). All three stages exist separately, the first and second appearing as different phenomena separated by a temporal interval. Its advocates proclaim the triad to be the absolute form of development and use it as a proof as a kind of universal method to explain widely differing processes. Is the essence of the law of the negation of negation exhausted by the concept of the triad? Of course not. The triad has meaning when it refers to the conceptual analysis of the development of a contradiction from its initial state of an identity of opposites through their polarisation and the struggle to resolve the contradiction. This is why it holds an important place in Hegelian philosophy stressing the self-development of concepts. Moreover, Hegel interpreted 'the negation of negation' or 'the third' as the neutralisation or harmonisation of opposites in some higher synthesis rather than the resolution of a real contradiction. Yet he considered the trinity or triad (*Triplicität*) to be 'actually and on the whole only the superficial, outward aspect of the method of knowledge'.[1] It is true that contrary to this correct idea Hegel also declared the triad to be the universal form of his dialectical method, which led him in many cases to an arbitrary schematisation of real phenomena.

Processes often occur in nature that can be treated as subject to a kind of triple rhythm. Such is the development of cereals: grain—plant—ear. But for the very content of the negation of negation in the unity of all its components (sublation, destruction, progression, pseudoreturns, etc.) this 'counting' seems as if imparted from outside, as something superficial. The triad is

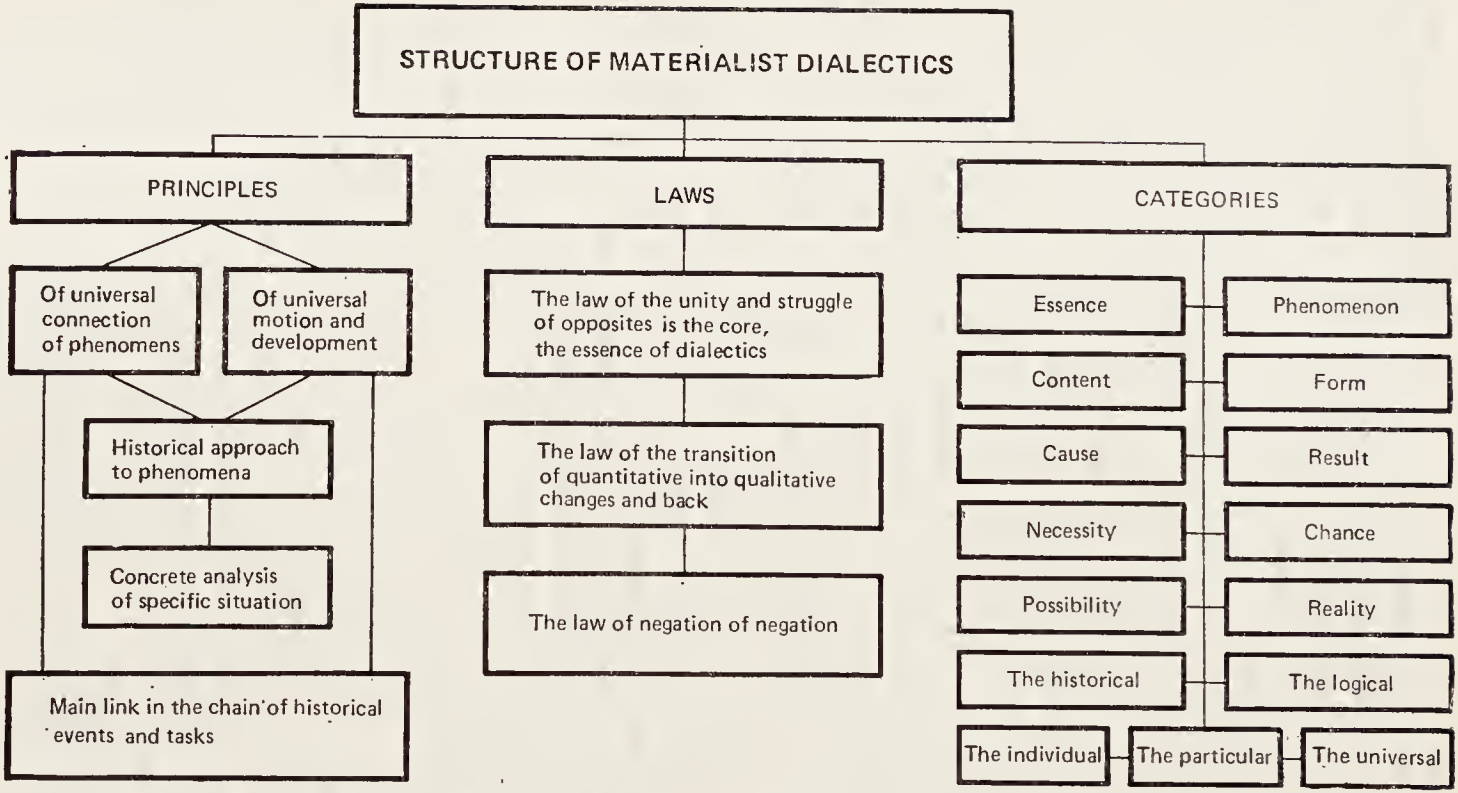
---

[1] G. W. F. Hegel, *Sämtliche Werke,* Fünfter Band. Wissenschaft der Logik, Zweiter Teil. Die subjektive Logik oder Lehre vom Begriff, Fr. Frommanns Verlag, Stuttgart, 1928, S. 344.

a fixture of the quantitative aspect of the process in some respect. Various definitenesses of an object may be taken as the units of counting, both the number 'three' and others. For instance, in the periodic system of chemical elements the recurrency of certain features is manifest in more than two consecutive 'negations', for each of the elements appears as something different from the preceding one, i.e., as its negation. The search for triads as three stages of development existing separately often leads to a crude schematisation of real processes.

This also applies to the use of the triad formula in argument. Imputations that Marxism involves belief in triads, in abstract schemes, are either due to the ignorance of the essence of the matter or to its deliberate falsification. On what basis did Marx infer in *Capital* the law-governed character of socialist revolution, the 'expropriation of expropriators'? On that of the triad? Certainly not. It was Marx's analysis of the essence and laws of the capitalist mode of production, of its internal antagonisms and class relations in bourgeois society, that led him to a scientific inference, corroborated by history, about the law-governed self-negation of capitalism as a social system. On the other hand, Marx used the concept of the negation of negation in formulating his conclusion, for the world as a whole and each of its manifestations in particular ultimately develop in a dialectical way, and capitalism is no exception in this respect.

The scientific conception of the general regularities of self-developing matter is not limited to the principal laws of dialectics discussed here. If we are to comprehend the development of objective reality in all its complexity and comprehensiveness we must not only reveal the source of movement (the unity and struggle of opposites), the means of implementing changes in reality (the transition of quantity into quality and back), and the direction of qualitative changes in concrete material systems (the negation of negation), but must also know many other essential aspects of objective reality, of which more later. Moreover, all the major positions of the dialectical conception of development are made more concrete when applied to various aspects of reality, with special importance being attached to the specific dialectic of human society.


STRUCTURE OF MATERIALIST DIALECTICS
PRINCIPLES
LAWS
CATEGORIES
Of universal connection of phenomens
Of universal motion and development
Historical approach to phenomena
Concrete analysis of specific situation
Main link in the chain of historical events and tasks
The law of the unity and struggle of opposites is the core, the essence of dialectics
The law of the transition of quantitative into qualitative changes and back
The law of negation of negation
Essence
Phenomenon
Content
Form
Cause
Result
Necessity
Chance
Possibility
Reality
The historical
The logical
The individual
The particular
The universal

Chapter IX

SOCIETY: OBJECTIVE REGULARITY OF DEVELOPMENT AND PEOPLE'S ACTIONS

With the development of matter, objective dialectics undergoes changes: qualitatively new laws and contradictions appear, the rate of evolution increases, etc. The general dialectical regularities thus become specific, and this is manifested particularly graphically in the social sphere.

1. The Dialectics of Social Life

Society is the highest, social form of the motion of matter. It is a product of interaction among people, i.e., it represents a complex dynamic system of their varied material and spiritual relations.

With the development of society the objective dialectics of development becomes essentially richer and more complex. This is because in society, unlike nature, people are endowed with consciousness, feeling and will. Their aspirations, strivings and practical actions often diverge and, in an antagonistic society, are directly opposed. Dialectical laws are also particularly manifested in society because social processes present a combination of material and spiritual factors and objective and subjective elements. The functioning mechanism of social laws includes a fundamentally new component as compared to the laws of nature —the social subject (individual, social group, class, society as a whole) as the agent of social processes. Unlike the laws of nature, the laws of social development concern people's activity, outside which they do not exist. Rabindranath Tagore expressed this idea aphoristically: 'Man does not reveal himself in his histo-

ry, he struggles up through it.'[1] However, not only the social laws proper—e.g. those of the class struggle in an antagonistic society, the law of value in commodity production, etc.—but also the general laws of dialectics reveal themselves in the history of mankind, in the development of social relations and in people's social actions. Thus social necessity is expressed in the social action of the masses and the progressive classes. The reactionary classes, on the other hand, go out of their way to prevent the consolidation and realisation of progressive social tendencies.

At the same time social laws do not break down in people's purely subjective actions. The laws of society are as objective as those of nature. They are substantial in character and differ from people's acts in their stability and constancy. This is because the necessary foundation of society's existence is material production. The conception of the dialectics of social life in the unity of its objective regularity and people's conscious activity has only become possible with the creation of historical materialism. Marx and Engels discovered the general laws of human history and provided a materialist answer to the fundamental question of philosophy as applied to society. We have already noted that dialectical and historical materialism arose as a single teaching, as an integral philosophy. Historical materialism is impossible without dialectical materialism, and vice versa. 'Non-historical' dialectical materialism is as inconceivable as 'non-dialectical' historical materialism. Marx gave his classical account of the main principles of historical materialism in the Preface to *A Contribution to the Critique of Political Economy*: 'In the social production of their existence, men inevitably enter into definite relations, which are independent of their will, namely relations of production appropriate to a given stage in the development of their material forces of production. The totality of these relations of production constitutes the economic structure of society, the real foundation, on which arises a legal and political superstructure and to which correspond definite forms of social consciousness. The mode of production of material life conditions the general process of social, political and intellectual

---

[1] Rabindranath Tagore, *Stray Birds,* Macmillan, London, 1926, p. 14.

life. It is not the consciousness of men that determines their existence, but their social existence that determines their consciousness. At a certain stage of development, the material productive forces of society come into conflict with the existing relations of production or—this merely expresses the same thing in legal terms—with the property relations within the framework of which they have operated hitherto. From forms of development of the productive forces these relations turn into their fetters. Then begins an era of social revolution. The changes in the economic foundation lead sooner or later to the transformation of the whole immense superstructure. In studying such transformations it is always necessary to distinguish between the material transformation of the economic conditions of production, which can be determined with the precision of natural science, and the legal, political, religious, artistic or philosophic—in short, ideological forms in which men become conscious of this conflict and fight it out. Just as one does not judge an individual by what he thinks about himself, so one cannot judge such a period of transformation by its consciousness, but, on the contrary, this consciousness must be explained from the contradictions of material life, from the conflict existing between the social forces of production and the relations of production. No social order is ever destroyed before all the productive forces for which it is sufficient have been developed, and new superior relations of production never replace older ones before the material conditions for their existence have matured within the framework of the old society. Mankind thus inevitably sets itself only such tasks as it is able to solve, since closer examination will always show that the problem itself arises only when the material conditions for its solution are already present or at least in the course of formation.'[1]

Marx here formulated the essence of the dialectico-materialist conception of social development: transition from one socio-economic formation to another takes place logically as a result of the ensuing conflict between the productive forces and production relations. These are the two aspects of the mode of pro-

---

[1] Karl Marx, *A Contribution to the Critique of Political Economy*, Progress Publishers, Moscow, 1978, pp. 20-21.

duction, the material basis for the existence of all social phenomena; this confict, however, is resolved in people's struggle and social action.

2. Social Action and Its Laws

Historical materialism disproves both the voluntaristic and fatalistic conceptions of human life. What is voluntarism? It is the negation of any regularity in the social process and a subjective idealist view of history. Voluntarists treat the history of society as the effect of absolutely free volitional acts of separate personalities undetermined by any external causes. These personalities are heroes; they are men of genius, commanders, kings, presidents, legislators, and saints. It is through their efforts alone that social progress comes about. Modern voluntarists hold, for instance, that the course of history can be altered at will, i.e., that one can prevent the movement of nations towards peace, national and social liberation and socialism, that one can perpetuate the developing countries' dependence on imperialism, skip the necessary stages of social development by means of all kinds of 'big leap', solve fundamental socio-economic problems using separate subjective administrative measures, etc.

Fatalism, on the other hand, is a religious idealistic doctrine concerned with the predetermination of man's destiny and the dominance of fate and blind necessity. Fatalists deny man's ability to influence the course of events, and wholly subordinate people to the power of alien, transcendental forces. Nowadays fatalistic views are held, in particular, by those who consider it impossible to solve such global problems of today as the prevention of a new world war, the provision of the rapidly increasing world population with food, the prevention of ecological crisis and of the spread of dangerous infectious diseases, etc.

Unlike voluntarism and fatalism, dialectical materialist philosophy assumes that although people are unable to abrogate objective laws, they are not powerless in face of them.

The materialist conception of history, notably recognition of the objective regularity of social development, does not exclude but presupposes the existence of an active social subject. The life of society is after all the realisation and result of people's practi-

cal activity. It is necessary in this context to go into further detail about people's action. Bourgeois authors usually identify social action with any manifestation of individual behaviour and treat social action as the purely psychological relations between people, as 'interaction'. Social action can of course in a certain sense be regarded as resulting from the integration of volitional, intellectual and emotional efforts on the part of separate personalities. Yet it would basically be incorrect to reduce it exclusively to interaction, to the psychological reaction of individuals. Such a reduction fails to disclose the content, causes and direction of people's socially significant activity. How can we, for example, explain the aggressive policy of reactionary regimes, class conflicts, national liberation movements, and so on, if we rely solely on psychological factors? Of course, psychological factors, e.g., the personal qualities of political figures, affect the course and character of social development. What matters in the workings of social dialectics, however, is not so much the behaviour of separate personalities as the process of revealing the laws governing the action of large groups of people, of the masses and classes. Marx's and Engels's great service, Lenin wrote, was precisely that they generalised and reduced 'the actions of "living individuals"... infinitely varied and apparently not lending themselves to any systematisation ... to the actions of groups of individuals .. to the actions of *classes*....'[1] Social action is above all the efforts of large masses of people (classes, the working masses, the people).

Social actions take many forms. Depending on the character of social relations and the sphere of activity, a distinction is made between economic, production, political, cognitive, moral, religious, and other action. Actions can be violent (compulsory, military) or non-violent, spontaneous or conscious. Depending on the subject one can talk in terms of group, class, national, state and other forms of action. With regard to social progress action can be revolutionary or counterrevolutionary, progressive or reactionary.

---

[1] V. I. Lenin, 'The Economic Content of Narodism and the Criticism of It in Mr. Struve's Book', *Collected Works,* Vol. 1, Moscow, 1964, p. 411.

The materialist conception of history has provided a scientific explanation for the basic laws governing mass action. Most important is the law of the material determination of social action. The basic form of human activity is material activity, and this determines all others, such as political, cultural or religious activities. It is this law that generally determines the subordination of various types of social action. People's actions in the sphere of material production (in the development of the productive forces and in changes in the production relations) constitute the objective foundation and the necessary prerequisite for all other social action. In specific historical conditions (e.g. during the struggle for national liberation or during revolution) social events are propelled by mass political action. Moreover, it would be wrong to draw a sharp distinction between production and political action: politics is, after all, a concentrated expression of economics. The exploiter state defends the existing but already obsolescent relations of production with all the power of its apparatus of coercion. Thus the main question of the social revolution is that of power, of its relation to the state. Political action and the class struggle are naturally the decisive factors in changing the economic basis and transforming the social superstructure.

A most important law of social action is that of the growing role of the popular masses in the historical process. The gist of this law is that the growing scope and importance of historical action is paralleled by the growth in the numbers of people who work to bring it about. The bigger the social problem being solved, the broader is the totality of individuals forming the integrated subject of social action. People are the makers of history. This is a fundamental principle of historical materialism. The concept of the 'popular masses' has changed in the course of history. In a class society they can consist of different classes. But the core of the people is still the working masses, the producers of material goods. The people are the overwhelming majority of the population as opposed to the anti-popular upper stratum, the reactionary classes. It includes all the social sections that promote social progress. In certain conditions, therefore, 'the people' also include some non-working classes, e.g. the national bourgeoisie, so long as they contribute to progressive social change

and struggle against imperialism, colonialism and neocolonialism, and for national liberation and peace.

The most challenging social task mankind has ever coped with —that of the socialist transformation of society, man's emancipation from all forms of oppression and exploitation and the creation of conditions for the all-round development of a working man—can only be accomplished through active, conscious social action of the working class allied with the broad working masses (above all, the peasantry).

Among other general laws of social action are also those concerning the growing role of the subjective factor in the social action of the people in step with historical progress, the embodiment of progressive ideas in the people's practical action, etc.

People's acts, which are different in direction, content and results, make social dialectics unique and realisable in practice, the character of manifestation of the general laws of dialectics depending on the specifics of the existing social relations.

3. Capitalism: the Dialectics of Antagonism

The universal laws of dialectics that operate unconditionally in history are manifested in different ways in the development of specific socio-economic formations. It would be a mistake therefore to fail to see, for example, an essential difference between the dialectics of a class-antagonistic society and that of socialism. 'With Marx,' Lenin said, 'the dialectics of bourgeois society is only a particular case of dialectics.'[1] In *Capital* Marx revealed the very essence of bourgeois economic relations to be the source of the irreconcilable opposition between the interests of the bourgeoisie and the proletariat. At the same time the dialectic he worked out on the basis of bourgeois society is of fundamental importance in understanding social dialectics in general. The dialectic of bourgeois society is a particular case of dialectics firstly because the objective dialectic of nature also exists alongside it; in which the general regularities reveal themselves

[1] V. I. Lenin, 'On the Question of Dialectics', *Collected Works,* Vol. 38, Moscow, 1964, p. 361.

in a different way to those governing people's social actions, and secondly, it is a particular case of dialectics of the socio-economic process as a whole.

The objective dialectic of bourgeois society has its characteristic features. It is above all marked by antagonistic social contradictions caused by the domination of private property and human exploitation, as well as by social and national oppression. Bourgeois society develops in class struggle. Progress under capitalism is uneven and limited. Society develops in a contradictory and spontaneous fashion. Social relations are dominated by conflict and disharmony. The social actions of people and classes have different aims and are opposed to one another. All this leads logically to the self-negation of capitalism as a result of its own internal dialectic.

According to the materialist conception of history, the replacement of socio-economic formations by other, more progressive ones is a social law expressed in the revolutionary action of the popular masses. Socialism and communism are the necessary outcome of the whole of human history and are the direct result of a revolutionary transformation of capitalism. This dialectical materialist thesis, fully borne out by the realities of world socialism, has today become the pivot of acute ideological struggle. Bourgeois writers declare socialist revolution 'outdated', alleging that any objective factors causing it have disappeared and that capitalism has supposedly overcome, under the scientific and technical revolution, the contradictions earlier endemic to it. This idea persists in some modifications of the 'post-industrial society', 'organised capitalism', 'social partnership society', 'democratic socialism', and other theories. In India it is propounded by the theoreticians of the big bourgeosie, who orient themselves towards capitalist development since the victory of the national liberation revolution. The thesis that the objective grounds for negating capitalism are absent is often coupled with the allegations of various extremist elements that the working class is incapable of being the subject of revolutionary action today because it has become 'bourgeoisified' and 'integrated' into the existing social regime. Some clarification is needed here as to the correlation between objective and subjective factors, in history in general, and in revolutionary action in particular.

4. Objective Conditions and Subjective Factors of Social Development

The relation between man's conscious activity and the circumstances in which he acts are expressed by the categories 'objective conditions' and 'subjective factor'. The latter is a particular degree of people's consciousness, the organised action, will and energy necessary to attain the goals they have set. It is necessary to draw a distinction between the concepts 'subject of action' and 'subjective factor'. The chief subject of military action, for example, is the armed forces, the army, while the subjective factor for the army as a whole is above all the moral and volitional qualities of the troops such as men's military training and discipline, their commanders' experience, abilities and will, military knowledge and skill, the soldiers' ideological conviction and moral endurance, etc.

In social transformations, the category of subjective factor expresses the combination of ideas with people's purposeful and organised action. The subjective factor thus characterises the subject's activity. The category 'objective conditions', on the other hand, denotes that which does not depend on the will and activities of a given group of people, party, class, or society as a whole, in the context of a specific social process. The objective conditions are the determinant source of social action.

The leading role of the objective conditions is fully expressed in revolutionary action. They are decisive in social change because they first of all determine the actual need to overcome mature social contradictions and consequently direct people's acts. They also create a real possibility for attaining the social objectives involved in transforming social relations.

What are, specifically, the objective conditions of a socialist revolution? Above all they comprise the material prerequisites: a definite level of the productive forces, conflict between the productive forces and production relations and an exacerbation of all the social antagonisms of bourgeois society. It should be specially stressed that the objective prerequisites for revolution include the working class, the leading force in the socialist transformation of society. They also include a whole complex of circumstances

termed a 'revolutionary situation', such as the impossibility for the ruling classes to preserve their domination intact, a crisis in the top strata of society; an inability on the part of the oppressed classes to go on living in the old way; the growth, beyond all measure, of the poverty and destitution of the working masses, and so on.

The objective conditions ultimately underlie the need for revolution. Yet the social transformation itself is realised by a vanguard class whose action also determines the content of the changes occurring in society. The subjective factor thus plays an important role in the revolution. It incorporates the proletariat's and other working people's mastery of communist ideas (ideological component); the will and determination of the working class in its struggle against the bourgeoisie (moral and volitional component); and the organised and purposeful action of the people, which presupposes above all the leading role of the communist party in the revolutionary struggle (organisational and practical component).

Having thus clarified the correlation between the subjective and objective factors in revolutionary action we can now consider the dialectic of modern capitalism. Contrary to the assertions of bourgeois ideologists, the nature of capitalism has not changed. The objective need to replace bourgeois social relations by more progressive, socialist ones, has become even more pressing under the scientific and technological revolution.

5. The Law-Governed Nature of Socialist Revolution

There are, of course, quite new phenomena in the development of modern capitalism. Its tendency to adapt itself to the conditions of struggle between the two systems, and to the requirements of the scientific and technical revolution, strengthens the state-monopoly character of imperialism and makes the ruling classes adopt a more flexible social policy. These classes are making a wider use of such levers as the state's stimulation of the monopoly concentration of production and capital, the redistribution by the state of an increasing portion of the national income, the granting of military orders to monopolies, government financ-

ing of industrial programmes and scientific research, the drafting of nationwide economic development programmes, a policy of economic integration, new forms of capital exports, the establishment of transnational monopolies, and neocolonialism. As the class struggle grows the bourgeoisie is resorting to social manoeuvring and is forced to make some social concessions. In class battles with capital the working people are wresting certain rights and guarantees for themselves.

Nevertheless, all attempts to 'cure' capitalism and create a 'welfare society' within its framework have obviously failed. It is becoming ever more evident that capitalism is a society without future. Monopoly domination tends to preserve the social antagonism traditional to capitalism, which is expressed in people's material hardships, unemployment, high costs and economic recession. It also engenders new antagonistic contradictions. 'This applies, in particular, to the contradiction between the unlimited possibilities opened up by the scientific and technological revolution and the roadblocks raised by capitalism to their utilisation for the benefit of society as a whole. Capitalism squanders national wealth, allocating for war purposes a great proportion of scientific discoveries and immense material resources. This is the contradiction between the social character of present-day production and the state-monopoly nature of its regulation. This is not only the growth of the contradiction between capital and labour, but also the deepening of the antagonism between the interests of the overwhelming majority of the nation and those of the financial oligarchy.'[1] In his Report to the 26th Congress of the CPSU Leonid Brezhnev stated that the recent years have seen a further aggravation of the general crisis of capitalism, the shrinking of the sphere of imperialist domination in the world, capitalism's third economic recession in the past ten years, further aggravatoin of inter-imperialist contradictions, a more frantic scramble for markets and for sources of raw materials and energy, an unprecedented rise in military expenditures, a sharp growth in the aggressiveness and adventurism of the imperialist policies, above all those of American imperialism, and exacerbation of inner contradictions in the capitalist countries.

[1] *International Meeting of Communist and Workers' Parties, Moscow, 1969,* Prague, 1969, p. 19.

The contradictions between the industrialised capitalist and the developing countries are becoming more strained. Under state-monopoly capitalism, the scientific and technical revolution has deepened social inequality in and between countries. Unemployment has become massive and chronic. In early 1981 the USA had nearly eight million unemployed. Over the last decade the army of the unemployed in the industrialised capitalist countries has doubled to reach 19 million in 1980. The difference in the living standards of the dominant strata and the working people is increasing. Even in the most developed capitalist country, the United States, 34 million live in poverty. Poverty and hunger zones have grown up in the Third World and even in the industrialised capitalist countries. The annual rate of mortality as caused by hunger and undernourishment is as much as 25 million. Living conditions are deteriorating sharply as a result of the destruction of the environment and ecological crisis.

These and other contradictions, growing more and more acute, make it historically necessary to expand and deepen the world revolutionary process ushered in by the Great October Socialist Revolution in Russia in 1917.

The objective conditions and factors for capitalism's self-negation have thus not lost their force today, but have become even more mature and effective. The formation and strengthening of the world socialist system has made it a powerful accelerator of historical progress; this system has a tremendous revolutionising impact on the capitalist world and acts as a decisive force in the anti-imperialist struggle. And imperialism is being increasingly attacked by peoples struggling for national liberation and defending their national independence. The non-aligned movement now unites some 100 states on all continents with a population of more than 1,500 million. The strengt hof this movement and its heightened role in world politics lie in it being spearheaded against imperialism and colonialism, against war and aggression. The developing countries that have cast off the colonial yoke have to solve difficult economic, social, demographic, cultural and ideological problems.

The working class, which is increasingly becoming the centre attracting all working strata, is the leading force in the modern revolutionary process. Its consistently revolutionary nature is de-

termined above all by its social being, its place in the system of production of bourgeois society and by the decisive circumstance that it is the bearer of the mode of production higher than the capitalist one.

Further technical progress brings about structural changes in the working class. Its nucleus, the industrial proletariat, is becoming surrounded by numerous sections and groups (industrial and office workers in the services, trade, information and communications, the technical intelligentsia, etc.). All these are drawing closer to it in their economic and social status. This status is marked by the following features: an all-round subordination to the system of capitalist exploitation; complete separation from the functions of management and organisation; labour activity that is dependent and purely mechanical.

Finding themselves in an equally subordinate position to the single system of state-monopoly domination, the various working class contingents are objectively inevitably united by the common interests of the class struggle against capitalism. This vastly increases the potentialities and role of the working class as a national force.

The Indian working class is rapidly growing in numbers. Since the Second World War industrial production has grown fourfold and machine-building eightfold, with many new industries being created. The leading role in the drive for industrialisation has been played by the public sector which now accounts for some 20 per cent of the total industrial production. The Soviet Union greatly helps India in developing its national economy. Some 70 projects have been or are being built on the basis of Soviet-Indian cooperation. Enterprises built with Soviet assistance produce 70 per cent of Indian oil, 80 per cent of metallurgical equipment, 60 per cent of heavy electrical engineering equipment, some 30 per cent of steel and 20 per cent of electricity. In terms of gross industrial production India is among the ten most industrialised countries of the world today. The industrialisation of the country has led to a growth in the number of industrial workers. India ranks third in the world in the number of technical specialists and skilled workers. At the same time, the most numerous detachment of Indian workers is the agricultural proletariat. According to the 1971 census village workers (agricultu-

ral and day labourers) accounted for 63.2 per cent of the gainfully employed agricultural population in Kerala, 54 per cent in Andhra Pradesh, 47.3 per cent in Bihar, and 45.3 per cent in West Bengal.

While noting the leading role of the working class in the anti-imperialist struggle and its growing revolutionary potential today, we must also consider other essential moments in the dialectic of revolutionary action. It is important to stress that the social base of socialist revolution is not limited to the working class. This revolution differs radically from all previous revolutions in that it frees the working masses from all forms of exploitation and awakens them to creative activities. Socialist revolution is therefore by its nature and aims a genuinely popular revolution, the product of the social action of the majority of the people. Not only the proletariat, but also the semi-proletarian and petty-bourgeois sections of town and country take part in it. As a system of social and national oppression imperialism does not only establish new forms of exploitation, but also conserves pre-capitalist forms. The peasantry and the petty-bourgeois masses, as well as the proletariat, are interested in socialism which brings them liberation from oppression. Non-proletarian social sections comprise the majority of the population in the developing countries. Especially great importance in the revolutionary process is acquired here by the alliance of the working class with the peasantry and non-proletarian masses. This alliance, if it is led by the working class, is decisive for the successful struggle of developing nations for national and social emancipation.

The objective law of the transition from capitalism to socialism is increasingly evident in our epoch, but it is only realised in a sharp struggle of the revolutionary forces against imperialism and reaction, rather than automatically. In these conditions the subjective factor of revolutionary action grows sharply in importance, specifically the development of the proletariat's class self-consciousness and revolutionary initiative, the liberation of the working class and its allies from reformist illusions, the organisation of all anti-imperialist forces, determination and consistency in revolutionary transformations, etc. The success of the workers' struggle in attaining their class objectives is largely dependent on a correct determination by the working class and the

communist parties leading it of the most expedient forms and methods of revolutionary action.

6. On the Role of Social Violence

It has now become necessary to deal with a very topical problem of the role of violence in social change. There are two equally one-sided theories on this problem. The adherents to the first make an absolute of violence in human history, proclaiming it to be the ultimate cause and principal method of all social change. Nowadays such idealistic and voluntaristic views are held by the most reactionary imperialist circles staking on nuclear missile war to solve international issues. This theory is also propounded by militarists and all kinds of hegemonic forces pushing nations to a new world war. Neo-anarchist, neo-Trotskyist and other extremist groupings of petty-bourgeois revolutionism rely exclusively on violence. Various Maoist groups practice terrorist acts and political assassinations. The acts of violence, gangsterism and murder perpetrated by extremist elements only hamper the formation of people's revolutionary consciousness and unity of action. The absolutisation of violence is politically harmful and theoretically untenable.

This is an idealistic view of history. Violence is not an independent and determinant factor of social development. It does not produce economic relations, but is itself dependent on them, stemming from the development of antagonistic contradictions in a class society. Force, wrote Marx, 'is itself an economic power'[1]. A state as 'concentrated and organised force of society'[2] is an organisation that implements the violence of the ruling classes. The economically dominant class ultimately establishes its political domination. And if this class eventually loses its dominant position in the economy, political power must inevitably pass to another class, one that is progressive from the angle of society's mature economic needs.

While noting that violence is dependent on and derivable

---

[1] Karl Marx, *Capital,* Vol. I p. 703.

[2] *Ibid.*

from economic conditions one should not ignore its role in social development.

Similarly undialectical is the opposite approach to social phenomena. While proponents of the theory of violence view it as the principal factor in social development, there are also those who see violence as an absolute evil to be avoided at all costs. It is such views, specifically, that are behind the abstract moral principle of the 'non-resistance to evil by violence'; the commandment that one should refrain from violence with regard to all living things, as proclaimed in some religions, e.g. Jainism; the rejection of violent methods in political struggle (e.g. the principle of non-violence in Gandhi's teaching); the utopian ideas of 'pure democracy' and 'absolute freedom', etc.

If the problem of violence is not considered with regard to all its implications, but only as applied to revolutionary action, some of its more essential aspects can be brought out in a scientific interpretation. According to historical materialism social violence is an inevitable and logical product of exploiter society. Having arisen together with classes and the state, violence has become an inalienable element of social relations and political life. Under private property and human exploitation, violence as practised by the exploiter classes is the chief means of preserving the given social relations. Without violence directed against the exploited masses of their own and other countries, slaveowners and feudal lords could not have exercised their domination. Nor can the capitalist system exist without violence.

Thus dialectics requires a concrete approach to the problem of violence. It can play a dual role—reactionary—if it is aimed at preserving the already obsolescent social system—or revolutionary—when it serves as an instrument for abolishing the obsolescent system and effecting the victory of a new society. What causes the need to apply revolutionary violence?

Let us note, first of all, that the class struggle itself, which is the law governing the development of antagonistic formations, is in fact none other than violence. On the part of the oppressed classes it is a quite understandable response to the regime of oppression and exploitation. The revolution, being the highest form of class struggle, only serves to reveal the resistance of the exploited masses, ever present in antagonistic society, to the violence of

the ruling classes. Hence revolution does not beget violence but only stimulates new forms of it—revolutionary violence.

Secondly, the economic relations of private property, exploitation and political power as objects of revolutionary action are fixed in definite political organisational forms (the state, law) which rely on powerful material forces (the army, police, intelligence service, courts, bureaucratic apparatus). Hence the revolutionary class has to overcome the resistance of the state-organised exploiter classes and is therefore compelled to use force in response to the latter's violence. This is specifically expressed in a direct armed uprising, the arrests of counterrevolutionaries, the expropriation of private property, the dissolution of reactionary state institutions, etc.

Thirdly, revolutionary violence is indispensable because the establishment of the political domination of the proletariat does not mean the end of the class struggle. It continues in other forms. The overthrown classes often put up resistance in very acute forms, such as through civil war, counterrevolutionary conspiracies, sabotage, subversion, etc. In the period of transition from capitalism to socialism the working class must therefore exercise state leadership of society, i.e., establish its own, proletarian dictatorship. One of its functions is to exercise the violence of the revolutionary working class against the overthrown exploiter classes. Since revolutionary violence is directed against an insignificant exploiter minority, the usurper of material and spiritual values, and of the rights and freedoms of the overwhelming majority of the people, it is justified both politically and morally.

It should be stressed at this point that the proletarian dictatorship, like revolution in general, is on no account exhausted by violence, and cannot be reduced just to that. The dictatorship of the proletariat, Lenin wrote, 'is not only the use of force against the exploiters, and not even mainly the use of force'.[1] Its main objectives are creative: to radically reconstruct the whole system of social relations on a socialist basis; to draw the peasant masses and the whole people into socialist construction; and to establish the basis of genuine democracy.

---

[1] V. I. Lenin, 'A Great Beginning', *Collected Works*, Moscow, 1965, Vol. 29, p. 419.

Thus under the relevant economic conditions violence proves both logical and justified. The forms and intensity of revolutionary violence, however, may differ depending on the degree and methods of resistance put up by the overthrown exploiter classes and the specific conditions of the class struggle. While supporting the use of all possible methods in the struggle for power (both peaceful and non-peaceful) the founders of scientific communism stressed that it would be preferable for the working class to accomplish a socialist revolution in a peaceful way. 'Where propaganda leads to the goal more quickly and more surely,' Marx wrote, 'an uprising is insane.'[1] A similar idea was expressed by Lenin. 'The working class,' he said, 'would, of course, prefer to take power peacefully.'[2]

Today there are favourable conditions for the revolution to develop peacefully. It would be undialectical and erroneous, however, to rely on that way alone. Even where there is a possibility for a peaceful transition to socialism it is by no means the obligatory or only possible path, for its realisation depends on the specific conditions of a given country. Insofar as a peaceful transition is also full of contradictions and struggle, and involves fierce resistance and opposition on the part of the monopoly bourgeoisie, it too is not an exclusively non-violent transition. With a peaceful transition to socialism violence assumes various forms of coercion and the control of the working class over the bourgeoisie.

We see then that Marxist dialectics requires a specifically historical approach to the problem of violence. Therefore one should not make a one-sided assessment of Gandhi's doctrine of non-violence. It is based on the ahimsā principle which forbids doing any harm to living creatures by thought, word or deed. The principle itself is quite abstract, and inapplicable, for example, to the reality of an exploiter society, to the relations between antagonistic classes and between oppressed and oppressing nations. Can the class struggle be avoided in an antagonistic society? Of course not. The class struggle is an objective law of the existence

---

[1] К. Маркс и Ф. Энгельс, Сочинения, т. 4, стр. 264.

[2] V. I. Lenin, 'A Retrograde Trend in Russian Social-Democracy', *Collected Works*, Vol. 4, Moscow, 1964, p. 276.

and development of a society based on private property and human exploitation, and it means violence manifested in various forms. The same applies to the struggle of peoples against imperialism to bring about national liberation and the elimination of colonialism. Revolutionary violence plays a substantial role in this social action too.

Does that mean, however, that Gandhi's idea of non-violence is devoid of any rational content? No, it does not. For Mahatma Gandhi believed that the only way humanity can rid itself of violence is through non-violence. And in our own day this idea may also have progressive significance, above all with regard to relations among states. The ahimsā, as realistically understood, can mean precisely the renunciation of force in international relations, the outlawing of war and the establishment of the principle of peaceful coexistence and peaceful interstate relations. The Gandhian idea of non-violence can thus serve to strengthen friendship among peoples and to establish just interstate relations based on mutual respect, non-interference and the settlement of all conflicts through negotiation.

The role of violence in history cannot thus be treated abstractly. It is pernicious for mankind to try and settle interstate issues by force of arms in our age of nuclear missiles and neutron bombs. But it is also true that violence is an indispensable factor in the dialectics of antagonistic socio-economic formations.

Objective social dialectics assumes a qualitatively different form under socialism.

7. The Dialectic of the Development of Socialism

The victory of the proletarian revolution and the strengthening of socialist social relations result in a fundamental change in the way the general laws of dialectics manifest themselves. Many essential features of the dialectics of bourgeois society are relegated to history—such as social antagonism, class struggle and conflict-ridden and spontaneous development.

The emergence and consolidation of socialism immensely increase the role of the popular masses as the subject of historical action. A qualitatively new stage sets in in the functioning of social

dialectics: the working masses, led by the working class with the communist party at their head, start building, consciously and on a planned basis, a new form of social reality—communist social relations—using objective laws. The transition from capitalism to socialism radically transforms relations among people, brings out new motive forces and sources of social development, and changes the type of social progress.

Socialism is the first phase of the communist formation. The Soviet Union has built a developed socialist society, a logical, law-governed stage on the road to communism. The Constitution of the USSR gives the following description of this society: 'At this stage, when socialism is developing on its own foundations, the creative forces of the new system and the advantages of the socialist way of life are becoming increasingly evident, and the working people are more and more widely enjoying the fruits of their great revolutionary gains.

'It is a society in which powerful productive forces and progressive science and culture have been created, in which the well-being of the people is constantly rising, and more and more favourable conditions are being provided for the all-round development of the individual.

'It is a society of mature socialist social relations, in which, on the basis of the drawing together of all classes and social strata and of the juridical and factual equality of all its nations and nationalities and their fraternal cooperation, a new historical community of people has been formed—the Soviet people.

'It is a society of high organisational capacity, ideological commitment, and consciousness of the working people, who are patriots and internationalists.

'It is a society in which the law of life is concern of all for the good of each and concern of each for the good of all.

'It is a society of true democracy, the political system of which ensures effective management of all public affairs, ever more active participation of the working people in running the state, and the combining of citizens' real rights and freedoms with their obligations and responsibility to society.'[1]

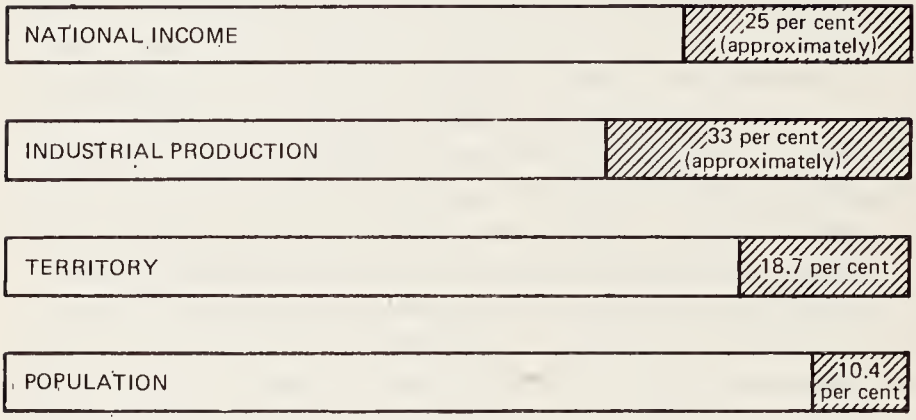
[1] *Constitution (Fundamental Law) of the Union of Soviet Socialist Republics,* Novosti Press Agency Publishing House, Moscow, 1977, pp. 13-14.

The Soviet Union is gradually and confidently moving to the great goal, the creation of a classless society. The working class plays a growing role in society and its numbers are growing too. Now the USSR has about 80 million industrial workers who account for two-thirds of the gainfully employed population. The modern workers' character of labour is changing too, being increasingly filled with intellectual content; today 75 per cent of workers have secondary (complete or incomplete) and higher education. Profound changes are occurring in the life of the collective farmers whose work is gradually coming close to that of industrial workers. The farmers' cultural standards are growing. Over the past ten years the number of farmers with secondary (complete or incomplete) and higher education has increased from 39 to 60-odd per cent. The number of intellectuals is growing rapidly in the USSR. Currently every fourth worker in this country does mental work. The classless sructure of society will largely take shape within the historical framework of mature socialism.

Intensive economic and social development of Soviet republics serves as the basis for their accelerated all-round convergence. There are no longer backward national regions in the USSR. Tremendous socio-economic changes, in particular in the Central Asian republics, can be illustrated by one fact: in regions where before the October Revolution the farmer was immersed in exhausting manual labour, today power-to-farmer ratio per 100 hectares of ploughland is double the average in the Soviet Union as a whole. The national feelings and national dignity of every man are respected in the Soviet country. The efflorescence and mutual enrichment of national cultures promotes the development of the culture of the Soviet people, a new social and internationalist community. This process is based on equality, fraternal cooperation and voluntariness.

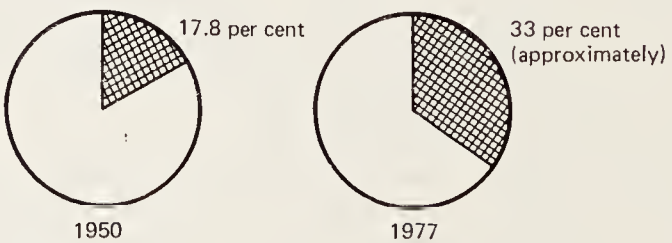
The qualitatively new character of social relations and social action under socialism also determines its specific dialectics. It is not just a particular, transient instance of dialectics as is the case with the dialectic of bourgeois society. Socialism does not only have its own specific regularities but, as the first phase of communism, it also possesses some general features that are endemic to

SHARE OF THE SOCIALIST COUNTRIES (1978) MEMBERS OF THE COUNCIL FOR MUTUAL ECONOMIC ASSISTANCE (CMEA) IN THE WORLD TOTAL



ECONOMIC DEVELOPMENT OF THE SOCIALIST COUNTRIES, MEMBERS OF THE COUNCIL FOR MUTUAL ECONOMIC ASSISTANCE(CMEA)

SHARE OF THE CMEA COUNTRIES
IN WORLD INDUSTRIAL PRODUCTION



the communist social formation as a whole, the highest form of human intercourse.

The socialist form of social relations, social production organised according to plan, on the basis of common, public property and labour of people free from exploitation, predetermine the uniqueness of dialectic of socialism. Its specific features include above all non-antagonistic social contradictions, which stem from the domination of social ownership of the means of production. The social action of the people has a unified and, on the whole, unidirectional nature under socialism. This unity underlies the social dynamism manifested in all spheres of social life. The socialist dialectic is further marked by a planned, gradual character and by an increasing harmonisation of social processes. Another essential feature is that the subjective factor, people's conscious activity in realising social necessity, comes to play an increasingly greater role in socialist society. The socialist dialectic is also characterised by a boundless, inexhaustible social progress within the framework of the communist formation. Social progress becomes truly nationwide, and humanist ideals and aims are translated into reality.

The socialist countries implement broad social programmes with such principal aims as those of constantly raising people's incomes, improving social security and housing, further developing and improving public education and health, providing the necessary conditions for people's all-round cultural development, rest and leisure, and protecting the environment. The socialist countries have made great progress in these fields.

In his Report to the 26th Congress of the CPSU Leonid Brezhnev stressed that the working man is the main, invaluable wealth of socialist society, which is why 'concrete concern for a concrete person, for his needs and requirements is the alpha and omega of the Party's economic policy'. This policy is largely aimed at making the Soviet people's life better, at ensuring the further growth of their well-being. What the socialist countries have done in economic development and raising the people's standards is an epoch-making achievement. The members of the Council for Mutual Economic Assistance are the most dynamic group of countries whose economic growth rate has been twice as much as that registered in the developed capital-

ist countries. The Soviet Union is now the world's largest producer of oil and steel, cement and mineral fertilizers, wheat and cotton, main-line electric and diesel locomotives; it has the world's largest machine-tool fleet; and has more engineers than any other country in the world.

The growing economic might of the Soviet country enabled it to implement a broad programme of raising the people's well-being in the seventies. A total of 32,000 million roubles were allocated to raising wages and salaries, pensions, allowances, etc. The minimum wages and salaries of medium-income industrial and office workers have been raised in all branches of the economy, while the collective farmers' remuneration grew even more rapidly. The minimum pensions to industrial and office workers and collective farmers have been raised. Scholarships to students of higher educational establishments, specialised secondary schools and technical schools have been increased, and allowances to children from low-income families have been introduced. The floor space of newly-built houses exceeds the entire urban housing available in the early sixties. The priority task now is to improve the provision of the people with foodstuffs and consumer goods.

There are ever greater possibilities for a fuller development of the individual, his full-blooded life. Measures are taken to eliminate manual, unskilled and arduous labour. Work is becoming ever more productive, meaningful, interesting and creative, the first vital requirement of each person.

These general features of the development of socialism substantially influence the way the basic dialectical laws manifest themselves.

8. Non-antagonistic Contradictions

Let us consider the problem of contradictions, for example. The enemies of socialism and dialectical materialism often claim that to recognise the socio-political unity of socialist society and the absence of hostile classes in it would mean to deny dialectics. They hold that class antagonism is indispensable for dialectics. Yet this argument deliberately distorts the essence of the matter and is a metaphysical interpretation of social relations. As a uni-

versal law of dialectics, the law of the unity and struggle of opposites also operates under socialism. But it is here manifested quite differently to how it is in bourgeois society. This is because there is no social antagonism in a developed socialist society. With the transition from capitalism to socialism the contradictions between the social character of production and private capitalist appropriation, the private ownership of the means of production, are abolished. Class antagonism is also eliminated. The class struggle ceases to be the internal motive force in the historical development of socialist society.

Antagonism and contradiction are not, however, the same thing. The former disappears, while the latter remains under socialism. The existence of contradictions under socialism is not a sign of any shortcomings or 'flaws'. Contradictions are the source of development of all phenomena, and socialism, as a rapidly progressing social system, has its own internal motive forces and sources of development. Existing socialism, a live, dynamically functioning system, is marked by various non-antagonistic contradictions: between people's increasing needs and the attained level of production; the essential but increasingly obliterated distinctions between town and country and between mental and manual work; certain contradictions that arise as a result of the scientific and technical revolution; still existing distinctions between the working and peasant classes, and also the intelligentsia; possible contradictions between the personal interests of individual citizens and the interests of society as a whole, etc. Contradictions in socialist society's existence are also reflected in its consciousness—in the struggle of an advanced world view against the survivals of bourgeois ideology and morals.

What specific features characterise the action of the law of the unity and struggle of opposites under socialism? First of all the concepts 'opposite', 'struggle of opposites', among others, acquire a new content here. In bourgeois society the struggle of opposites signifies the confrontation of irreconcilable class forces. In contrast, the dialectic of socialism is such that development proceeds through the resolution of non-antagonistic contradictions. Their bearers and, correspondingly, their parties, are friendly social groups rather then hostile classes opposed in their basic interests. Under socialism the 'struggle of opposites' thus

assumes a form of differences in the interests of groups of people on separate questions and a disharmony in separate aspects of social life. Under capitalism the struggle of opposites leads, as a rule, to the victory of one side and the extinction of the other, whereas under socialism, overcoming contradictions leads to a further strengthening of the socio-political unity of society rather than to an elimination of the existing social structure. An essential feature of the contradictions under socialism is also that society as a whole, rather than a separate class or social group, is the subject in whose interest the contradictions are resolved.

The specific character of the dialectical law under socialism that has been discussed here is also to be found in the ways and means necessary for the resolution of concrete social contradictions. In socialist society there is an objective possibility and necessity to systematically prepare and implement, under the leadership of the Communist Party, important social reforms and overcome emergent contradictions. The profound qualitative transformations under socialism are wrought by the purposeful action of the working masses. While determining the need to resolve a particular contradiction the Communist Party and the socialist state control the time, rate, depth and scale of the social change in question.

At different stages of development, different methods of solving contradictions are used. In the period of transition from capitalism to socialism it is quite logical, as we have said, to use force in relation to the overthrown but still resisting bourgeoisie. Since a mature socialist society is marked by non-antagonistic contradictions it does not resort to violence but to other ways of regulating social relations and the struggle of opposites. The social unity, planned economic management and scientifically based guidance of social processes increase the importance of these state measures. These measures create favourable conditions for the preparation and realisation of objectively necessary qualitative changes in various spheres of socialist reality. State reforms in the fields of economy, culture and social management are one of the principal ways of overcoming socialism's contradictions. Alongside reforms and other methods used by the state to improve social relations, there are also methods which do not involve the state in bringing influence to bear on social processes.

Old and obsolescent views, morals, habits and traditions are overcome, for instance, by education and persuasion. Criticism and self-criticism have therefore acquired great importance in the developed socialist society. They are an effective means of solving non-antagonistic contradictions in the cultural, spiritual life of a socialist society, and are a necessary prerequisite for, and a factor in the practical social action needed to overcome the existing contradictions.

Non-antagonistic contradictions also bear on other features of the dialectic of socialist society. This dialectic is for instance marked by the prevalence of gradual development and the transformation of social phenomena into more mature qualities. Also gradual are the main processes of qualitative change, such as growing over of the state of proletarian dictatorship into the state of the whole people, the improvement of developed socialism and the building of the material and technical basis of communism. Gradual qualitative changes under socialism do not mean any slow-down in the rate of social development. On the contrary, the dialectic of socialism is marked by dynamic social processes in all spheres of social life.

9. Negation and Progress under Socialism

The dialectic of the negation of negation also undergoes essential change in socialist society. In an exploiter society with its antagonistic contradictions negation is manifested in an acute class struggle and is most sharply expressed in social revolutions which Marx described as 'times of strong, passionate negation and denial'.[1] The deepest social change in history is the socialist revolution, whose radical nature consists in its ultimately negating private property based on the exploitation of other people's labour, and consequently, the whole system of superstructural and ideological phenomena that express and defend the interests of the exploiter classes.

In socialist society the obliteration of social antagonism and

---

[1] K. Marx, 'Moralising Criticism and Critical Morality'. In: Karl Marx and Frederick Engels, *Collected Works,* Vol. 6, Moscow, 1976, p. 317.

the end of the class struggle also erase many aspects of negation inherent in the exploiter system. There are no acute manifestations of violence, negation changes direction, spontaneity is superseded by consciousness and orderliness, etc. The non-antagonistic character of contradictions of socialist society also tells on the content and forms of negation under socialism and on the methods of solving contradictions. At the same time, the need for negation cannot disappear under socialism either. Here, as elsewhere, negation is a necessary condition for further development. Under socialism there are quite a few social elements that must be negated, which are thus objects of negation. They are obsolescent forms in various fields of vital activity that hamper further progress; conservative left-overs of the past, old habits and customs in people's everyday life, consciousness and behaviour; bourgeois ideology, and so on. Future communist society will also have its own contradictions and will resolve them; in the process of development something will become obsolete and thus become an object of negation on the part of society.

Specific features of negation under socialism will also determine other aspects of the law of the negation of negation. Thus under communism several great cycles of historical development will be completed. In primitive society there was tribal (common) property and equality among people. Later on private property appeared, with antagonistic classes and social inequality, i.e., the tribal system was negated. The victory of the socialist revolution and the building of a communist society, however, again signify the establishment of social property and social equality, i.e., negation of negation takes place. Needless to say, it is a 'quasi-return' to the initial point: even in this process the triad is an entirely superficial and outward aspect of the actual development with its tremendous progress in the productive forces and social culture. The victory of socialism is the beginning of mankind's true history. Opponents of dialectical and historical materialism often present this valid scientific tenet as the Marxists' 'renunciation' of dialectics in explaining social processes under communism. Moreover, directing their attention to the triad scheme they often maintain: 'Communism negates capitalism, but will not communism be negated itself in the future, with a resultant return to a class society?'

We have already pointed out that it is wrong to argue using the abstract triad formula. Why did one formation replace another prior to socialism? Because, firstly, there was an economic reason for it, i.e., there was conflict in the very mode of production, between the productive forces and production relations. Secondly, the abolition of old production relations was always in the interests of a certain social force, that is the advanced class, the subject of negation. The dialectics of progress under communism is caused by the fact that there will be no antagonistic contradictions in the communist mode of production, nor could there be any, because the social ownership of the means of production corresponds to the social character of the productive forces and provides all the opportunities necessary for their development. Thus the victory of socialism roots out the economic basis of social revolution. Consequently, for the first time in history, the existing type of production relations ceases to be the object of social negation (separate obsolescent elements, however, are naturally negated). Moreover, communist society, insofar as it is non-class in character, does not and cannot have a social subject that is interested in changing the existing mode of production. This is why communism is also the highest social stage that cannot be negated by any new formation. Thus it is not the superficial triad scheme, but an analysis of the features of the negation of negation under socialism that makes it possible to bring out the objective trends of historical progress. Needless to say, communism is not some absolute state or a consummation of human history. Society will develop according to the laws of dialectics under communism too. At the same time communist society sets no barriers to its own limitless perfection. It is the communist formation that ushers in accelerated social progress, under which the all-round, free development of the individual and the full-blooded expression of his creative forces will become the principal feature of social life. It is in this sense that the rise and development of socialism puts an end to mankind's prehistory and ushers in its true history.

Chapter X
PRACTICE AND TRUTH

The life and progressive development of society, whose essential features have been discussed in the preceding chapter, are only possible with people's increasing control over Nature and penetration into its secrets. A wise folk saying has it that knowledge is the best friend. People's knowledge guarantees their dominance over the elements. The acquisition and improvement of knowledge is the process whereby man cognises the reality surrounding him. The doctrine of the essence of knowledge and the structure and laws of the cognitive process is called the theory of knowledge or epistemology.

1. The Second Aspect of the Fundamental Question of Philosophy

The fundamental question of philosophy, that of the relation of thought to being, of consciousness to matter, has, as we have said above, a second aspect in addition to the first one (What is primary: matter or consciousness?). This second aspect concerns the problem of whether our thought can cognise the real world and whether we can correctly reflect outside reality in our ideas and notions about it. Philosophers call this the problem of the identity of thought and being.

Most philosophers have given affirmative answers to the above question. However, some of them have argued against the possibility of knowing the world. They are called agnostics. The German philosopher Kant, for example, recognised the existence

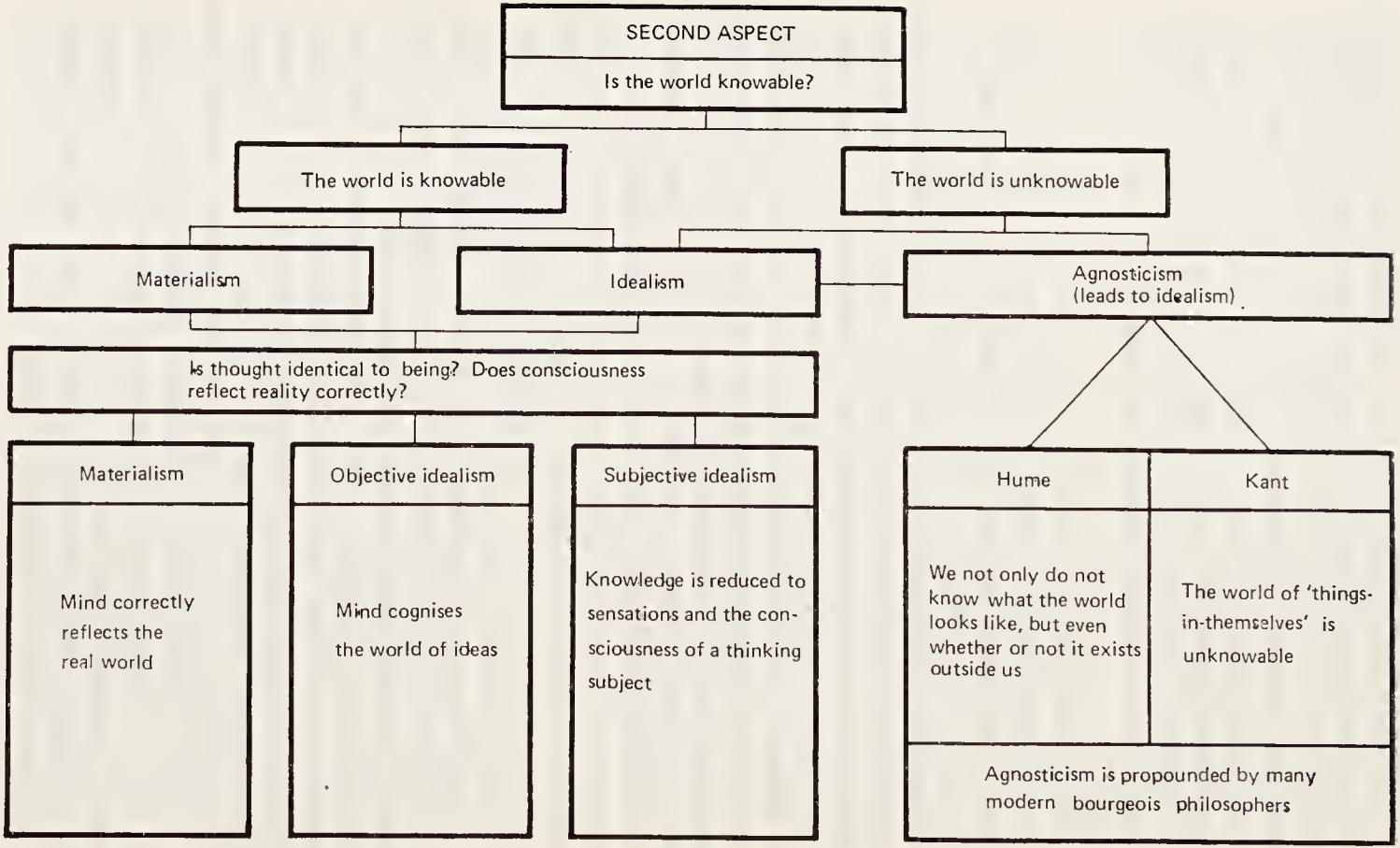
of the real world outside man but maintained that it could not be cognised in principle, for, as he said, there was an impassable barrier or gap between a phenomenon ('thing-for-us', *Ding-fur-uns*) and essence ('thing-in-itself', *Ding-an-sich*). As soon as man made any judgement about 'things-in-themselves', Kant held, his mind faced insoluble contradictions, or antinomies, thus betraying its utter impotence. Kant believed that a transition from phenomena to things-in-themselves was only possible through faith.

Representatives of philosophical scepticism, in particular the 18th-century English philosopher David Hume, were also agnostics. They denied the possibility of cognising reality, holding that it was altogether doubtful whether something existed outside us, beyond our sentiments. To back up their reasoning, sceptics argued that opposite judgements can be expressed about one and the same object, that man only deals with his own sensations and does not know where his sense perceptions come from, etc.

Advocates of irrationalism—Nietzsche, Bergson (1859-1941), and others—adopt a stand of overt agnosticism. They maintain that the world is unknowable because it lacks any regularity. Being is a chaotic flow of accidents, an illogical creative evolution, while thought implies logic. Logic deals with regularities, with causes and effects, while real being, the irrationalists insist, lacks them. It is therefore impossible to arrive at reasoned knowledge of the world. Agnostics are led to infer that, in principle, thought cannot be identified with being.

Agnosticism is widespread in modern bourgeois idealist philosophy. This was particularly obvious at the 16th World Congress of Philosophy. Several reports delivered at it substantiated the thesis that the irrational factor was primordial to man, that 'science cannot think', that it must be supplemented by a religious doctrine of being, etc. Conceptually, agnosticism is a reactionary philosophical doctrine. Socially, it expresses the ideology of the exploiter classes trying to distract working people from cognising existing reality. Agnosticism shackles people's creative activity and initiative. For, if the world is unknowable and science is unable to discover laws governing society's development, then people cannot consciously change and transform reality.

Agnosticism was opposed by many outstanding representa-


SECOND ASPECT
Is the world knowable?
The world is knowable
The world is unknowable
Materialism
Idealism
Agnosticism
(leads to idealism)
Is thought identical to being? Does consciousness reflect reality correctly?
Materialism
Mind correctly reflects the real world
Objective idealism
Mind cognises the world of ideas
Subjective idealism
Knowledge is reduced to sensations and the consciousness of a thinking subject
Hume
We not only do not know what the world looks like, but even whether or not it exists outside us
Kant
The world of 'things-in-themselves' is unknowable
Agnosticism is propounded by many modern bourgeois philosophers

tives of pre-Marxian philosophy, both idealists and materialists. They argued for the knowability of the world. But idealists and materialists hold fundamentally different views on this. Idealists assume that true being, is by its nature ideal, as is cognising thought. They thus identify being and thought presenting cognition as a process whereby the spirit comprehends itself. The objective idealists, Plato, for one, said that man cognised truth through 'recollection'. For this purpose, Plato believed, man had to discard all that was corporeal, sensual, and had to close his eyes, shut his ears, and withdraw into self-observation to try to 'recall' what his immortal soul had allegedly experienced in the true world of ideas.

Similar views on cognition are to be found in the idealist doctrine of the Vedānta school (4th century B. C.). According to this, there is only one genuine object—Brahman. It can be cognised only through constant yoga exercise. By discarding all that is earthly or celestial, by constantly improving the ability to pacify the soul, by suppressing emotions, curbing passions and educating patience, concentration and other fine qualities, Yogis awaken in themselves an irresistible desire to free their own minds. This results, as Indian idealists have taught, in the birth of perfect knowledge. The cognition of Brahman uproots all sins.

In Hegel an affirmative answer to the question of the identity of thought and being was also self-evident: in the real world we cognise precisely its intelligible content, insofar as reality itself is reasonable. In the final analysis cognition is a process of the self-consciousness of the Absolute Idea.

Since for idealists, when they give a positive answer to the second aspect of the fundamental question of philosophy, 'true knowledge' is only cognition of the Absolute, idea, Brahman, and so on, their criticism of agnosticism is not consistent. Idealism and agnosticism are evidently related to each other. Agnosticism can only be fully and conclusively refuted from the standpoint of materialist philosophy.

For idealism thought and being are indentical because being itself is interpreted as something ideal. For materialism, however, the answer to the second aspect of the fundamental question of philosophy stems from the principle of reflection. Thought is identical to being only in the sense that it reflects it. As its reflec-

tion, thought is secondary to being, to matter. The identity of thought and being can therefore only be referred to in the epistemological sense, i.e., on the plane of the knowability of the world. The 18th-century French materialists, Feuerbach and other philosophers, affirmed their belief in the power of the human intellect and emotions. But the theory of knowledge of pre-Marxian materialism was circumscribed by its contemplative character. The pre-Marxian materialists were unable to fully understand the active quality of the human mind. For them, man was destined to only a passive perception of outside influences. Moreover, they only took an isolated individual as the subject of cognition and disregarded the socio-historical nature of man's consciousness. The very process of reflecting reality was interpreted by them in an extremely one-sided way, as an immediate, direct and mirror-like reproduction of the essence of objects in human consciousness. All these flaws can be derived from the main one: the pre-Marxian materialists, as well of course, as all the idealists, failed to understand the decisive role of socio-historical practice in the process of cognition.

2. The Determinant Role of Practice in Cognition

Pre-Marxian philosophers usually contrasted cognition with people's material activity and social action. They treated cognition as a purely subjective search for truth, as a mere product of inquisitiveness which was not conditioned by any actual requirements. Naturally, the problem of the knowability of the world was mainly tackled in theory. And though theorists produced quite convincing arguments against agnosticism, the latter was never fully refuted. The fact is that cognition is not a purely spiritual, intellectual requirement of people. It is inextricably bound up in its roots with man's objective material activity, with practice. And it is in practice that agnosticism is most resolutely refuted.

People first related to the world in practical terms by actively transforming it to meet their material needs. Only through a material interaction with nature could they form a theoretical attitude to it. In altering a substance to produce definite objects

or tools man had to differentiate the specific properties of stone, wood, metal, etc. at the early stages of his history. Thus reality was cognised and knowledge of it acquired in the direct labour process. Consequently, knowledge arises from practice and develops on a practical basis. 'The standpoint of life, of practice, should be first and fundamental in the theory of knowledge,' wrote Lenin[1]. The requirements of social practice have always been the basis, the motive force, and the source of the development of knowledge. The need to measure areas of land, to determine the capacity of vessels, to calculate time, trade accounts, etc. has stimulated the development of mathematical knowledge. The need to build houses, channels, dams, ships and other means of transport, to produce equipment for lifting things and for other uses, weapons, etc. has stimulated the development of mechanics.

In our day, too, practical requirements determine the development of scientific knowledge. This is quite evident in mathematics, a science exhibiting a clear tendency to improve its ideas through its own inner logic. The need to transfer information via communication channels has given rise, for example, to a new science, the theory of information. Having arisen on a practical basis, this theory has itself influenced several classical fields of mathematics, such as the theory of functions, the theory of probability, etc. Modern industrial production and the design of new structures, geodesy, economic management and so on, require a tremendous amount of calculation, and electronic computers were invented to meet this practical requirement. The use of computers has given rise to many new trends in mathematical research, such as the programming of computing and logical problems for computers, the theory of automata, the theory of algorithms, and so on.

Practice is not only the starting point and basis of cognition, but it is also its aim. Man cognises the laws of nature in order to subjugate it and turn it to his service. Knowledge of social laws is necessary for him to influence historical events in the interests of the working masses.

---

[1] V. I. Lenin, 'Materialism and Empirio-Criticism', *Collected Works*, Vol. 14, p. 142.

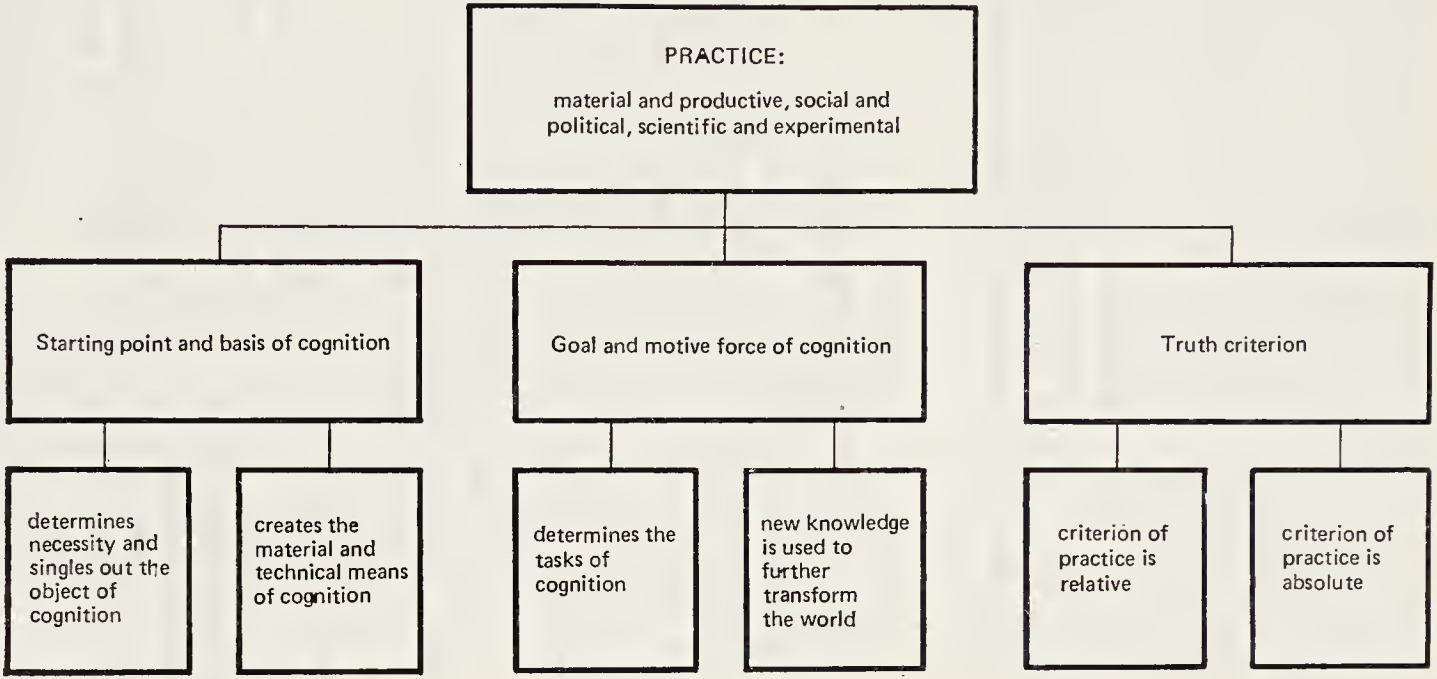
What is the concept of practice as understood by dialectical materialism? This question is important because many idealist philosophers use the term 'practice' or 'experience' to camouflage the essence of their doctrines. Subjective idealists interpret practice as man's sensuous experience. For them, things only exist in the subject's experience, and experience is only the sum total of sensations, a complex of elements in man's self-consciousness. Typical in this respect are the views of the modern bourgeois pragmatist philosophers. According to pragmatism, practice is organisation, through an effort of will and attention, of the chaotic flow of consciousness and people's feelings and emotions. Changes take place in such 'practices' not in fact, in the real physical world, but in the subject's inner world. Pragmatism, as a particular instance of subjective idealism, construes the active aspect of human thinking as an absolute, which is typical for idealism in general.

A scientific concept of practice is the outcome of a materialist solution to the fundamental question of philosophy. Things are not created in one's experience, but are cognised through reflecting reality in practice. Practice has a concrete, historical character; it is the purposeful, object-material activity of man, engaged in changing the objective world that exists independently of his consciousness. Practical action differs from spiritual, mental action (logical operations, fantasies, prayers, etc.) in that it presupposes (a) man's material contact with natural objects, society or objectified forms of relations between people; (b) the expenditure of a certain amount of physical energy alongside mental energy; (c) the coordination of the programme of action with the essence and properties of the world, nature or society which are changed in the course of this activity.

Thus, above all, practice incorporates man's material-productive activity, which is the main and determining aspect of people's activity in general. It is their work in industry, agriculture, transport, communications and other spheres of material production. These basic kinds of practice also include social practice, i.e., people's actions in changing or preserving the existing social relations: the class struggle, the revolutionary action of the popular masses, the national liberation movement, the socialist transformation of society and the building of communism, the

ROLE OF PRACTICE IN THE PROCESS OF COGNITION

'The standpoint of life, of practice, should be first and fundamental in the theory of knowledge.'
Lenin



struggle for peace, and the peaceful coexistence of states with differing social systems. Apart from these basic types of practice, people's practical action is expressed in specific forms in various spheres of activity. In science, for instance, as opposed to theoretical knowledge, practical action includes experiments, astronomical and other observations, and geographic and geological discoveries. Practical activity is also a characteristic of medicine, artistic work and everyday life.

The sum total of all this action, at the basis of which is people's activity in material production, and which changes in the course of history, is called the socio-historical practice. While adopting the standpoint of life, of practice, dialectical materialism offers a fundamentally new understanding of the essence of the cognitive process.

3. The Essence of Marxist Epistemology

Pre-Marxian materialism, as we have noted, was contemplative. It regarded human knowledge as the passive reflection of objects and processes occurring in the surrounding world. Dialectical materialism, on the other hand, treats knowledge as a necessary component of the socio-historical process of mastering nature and improving relations between people. The subject of our knowledge is not so much nature as it is, 'in the raw', as nature transformed by human activity. And only by cognising nature as it has been transformed through practice, is man able to cognise phenomena lying outside his direct activity. Cognition must here be understood as a predominantly active, dynamic process. It is not a matter of nature simply influencing man, who contemplates passively, but of a subject that acts practically, and uses the elemental forces of nature consciously and purposefully, and in this object-oriented, material process, cognises natural structures and laws. Moreover, it is essential to note that cognition does not limit itself to the cognitive activity of individuals, but results from the combined efforts of the whole of mankind. Historical practice, constantly being enriched, serves as the basis for the growth and extension of our knowledge of the objective world of nature an dsociety and the degree to which our knowledge corresponds to the actual essence of the world.

The history of science and the entire historical experience of mankind has proved irrefutably that there is much unknown but nothing unknowable in the world. Modern physics is bringing increasingly delicate structures of matter to light and the atomic forces released by this work are serving man. Our knowledge of the Universe has expanded enormously through the development of radioastronomy and space research. Biology has delved deep into the mechanism of heredity, and the knowledge of genetic processes is having a practical effect in higher crop yields, breakthroughs in combating diseases, etc. General laws of the modern age, of the world revolutionary process, discovered by the Marxist-Leninist theory, are helping to accelerate progressive changes in the world.

Thus, dialectical materialism, relying on the practical experience of mankind's cognitive activity, gives an affirmative answer to the second aspect of the fundamental question of philosophy. Lenin expressed the essence of the epistemology of dialectical materialism in these words: '1) Things exist independently of our consciousness, independently of our sensations, outside of us.... 2) There is definitely no difference in principle between the phenomenon and the thing-in-itself, and there cannot be any such difference. The only difference is between what is known and what is not yet known.... 3) In the theory of knowledge, as in every other sphere of science, we must think dialectically, that is, we must not regard our knowledge as ready-made and inalterable, but must determine how *knowledge* emerges from *ignorance,* how incomplete, inexact knowledge becomes more complete and more exact.'[1]

Human knowledge is extending and deepening all the time in the process of cognition. Knowledge is the most important component of consciousness alongside people's emotions and their attitudes to reality. It is necessarily and inextricably connected with language as the instrument of men's intercourse. Knowledge is a reflection of the essential properties of and connections between objects and their natural laws. Knowledge can differ in content: it can be false (delusions, mistakes, falsification), unau-

---

[1] V. I. Lenin, 'Materialism and Empirio-Criticism', *Collected Works,* Vol. 14, p. 103.

thenticated (guesses, hypotheses), or true. People have always striven to attain true knowledge. The old wise saying, 'Knowledge is the greatest treasure, it cannot be taken away, it is inexhaustible and beyond value' is true to this day.

4. What Is the Truth?

Man has pondered this question since time immemorial. It has always been the centre of philosophical debate. An understanding of what truth is is inseparable from the solution to the fundamental question of philosophy. The dialectico-materialist solution to the problem of truth is based on the theory of reflection and differs from various idealist conceptions. It is also different from the interpretation of truth given by metaphysical, contemplative materialism.

Exponents of objective idealism interpret the truth as an attribute of ideal being—the spirit, idea, or God—*per se*. According, for instance, to Plato's theory of cognition as the recollections of the soul of a world of ideas, the truth is a supernatural, independently existing ideal essence; the 'truth-in-itself' is a world of ideas, and human knowledge is only true according to the extent the soul is in communion with this 'other' world of ideas. According to the ancient Indian Vedānta philosophy, the only true reality is the Absolute Spirit, the Supreme Soul (Brahman). Knowledge of the ephemeral world of phenomena (māyā) cannot therefore be true. Only comprehension of Brahman is true knowledge. For the objective idealist Hegel the truth is 'the idea' in all the fullness of its definitions and concreteness; it is the becoming of knowledge in the sphere of pure thought *(reine Denken)*.

Objective idealism thus considers the truth to be irrespective of the reflection of the world that takes place in man's consciousness. It treats the truth, not as a property of human knowledge in relation to an object, but as an inherent quality of some extratemporal, eternal idea. In contrast to such idealistic views, dialectical materialism assumes that the world and nature are in themselves neither true nor false. A characteristic of truth is that it only refers to our knowledge of things rather than to the things themselves.

Subjective idealists also incorrectly interpret the problem of truth. In denying that the outside world exists independently of man, they ignore any objective content in our knowledge and connect truth exclusively with the properties of consciousness regardless of the process whereby reality is reflected. There are various subjectivist concepts of truth. Some regard as true that which is generally meaningful, i.e., that which accords with the opinion of the majority. Others see truth in what is thought of in a simple or economical fashion. Still others consider as true that which agrees with other judgements in a given system of statements. And there is an interpretation of truth as that which is useful. All these interpretations characteristically deny the existence of an objective truth.

Here the truth of judgements is wholly determined by the subject and depends on him. For example, the majority of people may share religious beliefs, but the latter do not become true because of this. Similarly, simplicity cannot be elevated to a criterion of truth. It is simpler to conceive of an atom as indivisible than divisible and having a complex structure, but the former view is not true in the light of modern science. Furthermore, one can well imagine a system of propositions each of which would agree with the others and not contradict them, but which does not contain the truth and is an arbitrary logical construction. As for the thesis which states that that which is useful is true (a conception propounded by the bourgeois philosophy of pragmatism), its subjectivism is self-evident, because it immediately begs the question who will profit and who benefit from a particular judgement. It is easy to prove from the pragmatist standpoint, for instance, the 'truth' of any superstition or mysticism, insofar as they are of use to the reactionary classes.

5. The Objective Truth

Both subjective and objective idealists regard truth as an internal property of consciousness. According to dialectical materialism, however, cognition is the reflection of reality in the process of its practical transformation by man. The knowledge which correctly reflects this reality will therefore be true. A distorted reflection of reality, on the other hand, gives rise to errors,

i.e., to an untrue knowledge. Truth is thought that corresponds to reality. This means that our knowledge includes a content that does not depend on the subject, neither on the individual, nor on mankind. Truth is thus always objective.

Recognition of the objective quality of truth expresses the materialist solution to the second aspect of the fundamental question of philosophy: our notions, concepts and theories are only true insofar as they have an objective content that does not depend on consciousness. The truth of particular views is determined by the properties and natural laws of the objective reality reflected, rather than by man's wish or subjective opinion. No matter how many times, for example, bourgeois ideologists may pronounce the Marxist teaching of the class struggle to be outdated, it nevertheless does not cease to be an objective truth. For modern capitalist society is also marked by an antagonism of class interests determined by the domination of private property and human exploitation.

Pre-Marxian materialists also recognised the objectivity of truth. At the same time, they treated truth metaphysically in arguing that its content exhaustively covers reflected reality. Unlike the old materialism, Marxist-Leninist philosophy regards the truth as a process of increasingly deeper reflection mediated by socio-historical practice, rather than as a one-time act of the full correspondence of thought to objective reality. This means, first, that the real object of knowledge is not the objective world 'in and of itself', but is reality mediated by practice, by the material activity of man. Secondly, insofar as mankind's practice is itself changing and the subject's cognitive potentialities are improving, objective truth does not appear as some complete, self-contained idea (statement, theory, etc.), but as a dialectical process of change and development of knowledge, reflecting the objective world.

6. The Relative and Absolute in Truth

The foregoing discussion prompts us to take up the problem of the relation between absolute and relative truth. If objective truth exists, then how is it to be cognised? Can human ideas express the objective truth immediately, wholly, unconditionally and

absolutely, or only approximately and relatively? It should be stressed that in scientific epistemology the question is not one of the existence of three kinds of truth (objective, relative and absolute), but of the relation between the absolute and the relative in one and the same objective truth. The dialectical materialist doctrine on the relation between absolute and relative truth connects such aspects of knowledge as its truthfulness and its changeability. For metaphysicists these qualities are incompatible.

Pre-Marxian philosophy treated the truth from a predominantly dogmatic standpoint. Philosophical dogmatism is a denial of any element of relativity in truth. For dogmatists, genuine truths can only be absolute, unconditional, exhaustive and unchangeable. Once established, truths cannot subsequently be altered. Truth and error were treated as diametrical opposites, completely divorced from each other. If in the course of its development inaccuracies or even mistakes were found in knowledge, then metaphysicists declared such knowledge to be erroneous and untrue. Dogmatism dooms science to stagnation and actually leads to a refusal to further cognise the objective world. In our day, a dogmatic treatment of truth is peculiar, for instance, to various religious idealistic doctrines that elevate theological statements into indisputable knowledge of higher order than scientific knowledge.

Epistemological relativism is just as metaphysically one-sided. Relativists, as we have noted, disregard the moment of stability in motion. In the theory of knowledge, this means that they deny any absolute elements in truth and recognise only its relative quality. Furthermore, they interpret the relative and changeable character of knowledge as its subjectivity, which means that they deny both absolute and objective truth. This leads directly to agnosticism. A relativist approach underlies the view of the problem of truth taken by modern positivists and particularly by the conventionalists. The latter regard any scientific proposition of law as the product of an arbitrary convention between scientists, thus depriving science of objective significance and throwing doubt on the truth of its tenets.

Adherents of the aforementioned pluralism also adopt the stand of philosophical relativism. Pluralism in epistemology entails a subjectivist preaching of the 'multiplicity' of 'truths'. Pluralists

declare that materialism and idealism, science and religion, socialist and bourgeois ideas, etc. are equally true. But surely science does not give fundamentally different answers to one and the same problem it has solved. There is one scientific truth. At the same time, false and incorrect views of a particular problem may vary widely.

In contrast to dogmatism and relativism, dialectical materialism recognises a unity and opposition of absolute and relative elements in true knowledge. What is, then, relative truth? It is knowledge that approximately and incompletely reflects the objective world. At any stage in socio-historical practice, human knowledge is relative by virtue of its being limited and incomplete. But relativity of truth does not only apply to man's combined knowledge at a particular stage in the development of society, it is also a quality of any objective truth considered separately—scientific theory, true propositions and so on. In this case the relativity of the truth consists in its being inaccurate, in the historical limitations on our knowledge of specific phenomena, properties, connections between them, etc. Any truth (e.g. a particular scientific theory) is relative in the sense that it, first, does not provide a full and exhaustive knowledge of the area studied by this theory. Secondly, the truth (in our example, the scientific theory) incorporates such elements of knowledge (e.g. concepts, propositions and hypotheses) which will be changed, enriched and replaced by new ones. At the same time, relative truth, unlike error, has objective content and to a certain extent signifies a correspondence between thought and reality. Therefore, it also has something absolute.

What does dialectical materialism understand by absolute truth? It sometimes happens that absolute truth is treated as exhaustive, complete knowledge, entirely coincident with the object concerned. Yet since the objective world is infinite in space and time, and constantly developing and changing, cognition of it can never be complete. Such a conception of the absolute nature of human knowledge must therefore be rejected, and thus it follows that absolute truth should be discussed in a different sense, as the maximal coincidence of knowledge with the object in some limited part, as an exhaustive knowledge of its separate aspects and properties. The absolute in truth is that which is

borne out by practice and cannot be disproved in the future. Old knowledge is not wholly discarded in the cognitive process during its development, but is included in some form or other in the system of new knowledge. It is this continuing accumulation of objective knowledge which is implied by the concept of absolute truth. Each relative truth contains an element, a 'grain' of absolute truth. The movement towards absolute truth is expressed precisely in the growth of knowledge. 'Human thought...' Lenin wrote, 'by its nature is capable of giving, and does give, absolute truth, which is compounded of a sum-total of relative truths. Each step in the development of science adds new grains to the sum of absolute truth, but the limits of the truth of each scientific proposition are relative, now expanding, now shrinking with the growth of knowledge.'[1]

This, for example, is how our knowledge of chemical elements and their properties was perfected. The concepts of the atom and molecule were firmly established in chemistry by the second half of the nineteenth century. Conceptions about the atom underlay the discovery of the fundamental laws concerning the formation of complex chemical substances from elements. More than 60 chemical elements had been studied, their properties described and their atomic weights more or less exactly measured. The frontiers of our true knowledge about chemical elements were enormously extended when the Russian scientist Dmitri Mendeleyev discovered his periodic law of elements. His discovery of objective, regular ties between chemical elements enabled him to predict the existence of several unknown elements and to describe their properties with amazing accuracy. To denote the elements he had predicted, Mendeleyev used Sanscrit. He used the prefixes 'equa' (one) and 'dvi' (two) to label an unknown element in his system that was one or two rows below the known element it had to resemble. In his *Natural System of Elements* (1870) he marked the elements he predicted using bold lines. Equaboron was akin to boron, equaaluminium to aluminium, equasilicon to silicon, and dvimanganese to manganese. The modern terms are scandium, gallium, germanium and rhenium, respectively.

[1] V. I. Lenin, 'Materialism and Empirio-Criticism', *Collected Works*, Vol. 14, p. 135.

TRUTH

'Is there such a thing as objective truth, that is, can human ideas have a content that does not depend on a subject, that does not depend either on a human being or on humanity? ... If so, can human ideas, which give expression to objective truth, express it all, at one time, as a whole, unconditionally, absolutely, or only approximately, relatively? This ... question is a question of the relation of absolute truth to relative truth.'

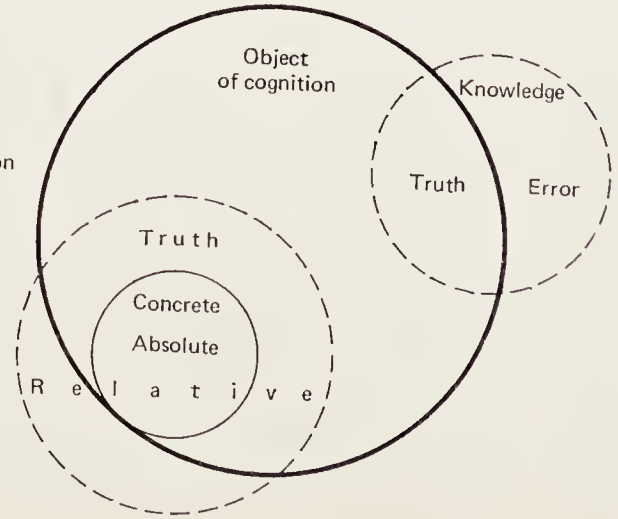
Lenin

RELATIVE TRUTH

incomplete correspondence of knowledge to reality; knowledge that would be specified and adjusted in further cognition

ABSOLUTE TRUTH

in the broad sense of the word—complete correspondence of knowledge to reality, exhaustive cognition of the world. Science strives for such knowledge in the narrow sense of the word — statement of facts; knowledge of individual trends, connections and laws; that content of relative truths which does not change in the process of further cognition



TRUTH

knowledge corresponding to reality

ERROR

knowledge that does not correspond to reality (overstated or understated correspondence of knowledge to reality)

Mendeleyev's discovery, like any scientific truth, was a unity of the relative and absolute in knowledge. The 'grain' of absolute truth was his indication of the connection between the properties of elements and their atomic weights, of the periodicity of properties, the existence of many unknown chemical elements, etc. At the same time, it was relative truth, since there was insufficient knowledge of the reasons for the dependence of properties of elements on their atomic weights and for the periodicity of these properties, while certain chemical elements and their isotopes had not yet been studied.

Modern physics and chemistry have essentially deepened our knowledge of chemical elements. The reason for chemical periodicity has been discovered. The nuclear charge rather than the atomic weight is the basic parameter of an atom. The periodic recurrency of similar features in the properties of elements results from periodicity in the structure of electronic shells. Transuranic elements that were not in Mendeleyev's table and do not exist naturally on earth, have been obtained in laboratory conditions. A total of 105 elements are now known. Our knowledge about the atomic world continues to grow, as does the sum of grains of absolute truth. And this movement towards absolute knowledge is without end, since matter is inexhaustible, and each stage of socio-historical practice is limited.

7. There Is No Abstract Truth, Truth Is Always Concrete

Though objective truth, with its unity of absolute and relative aspects, is a process, it is also a definite, concrete historical result of cognition. There is no abstract truth, truth is always concrete. This is a most important thesis of Marxism-Leninism. What does it mean?

It means above all that any true assertion is historically determined. It has an inherent, real, concrete content. Truth only preserves its quality in defined conditions where there is a correspondence between thought and reality. Any truth must be regarded as relative to specific conditions. In other conditions it may become an error.

The concrete nature of truth means that our knowledge about

the objects and phenomena of the outside world must be a unity of multiformity, rather than a reflection of any one aspect of them. Any object of material reality possesses a wealth of properties and connections with other objects; moreover, it does not only have qualities common to many other things, but is also characterised by unique qualities. True thinking requires that account be taken of the multiformity of qualities and changes in reflected reality, and that the specifics of the process in question be brought out. Only in this case does the truth become concrete.

The concrete quality of truth is of enormous importance in the practice of revolutionary struggle. As applied to the understanding of laws governing the transition to socialism, this concrete quality is the knowledge of how the general is expressed in the particular and of how the particular itself deepens and enriches the real dialectic of life. The concreteness of truth is a *sine qua non* in creative approach to revolutionary action. This was again stressed in the Main Document of the International Meeting of Communist and Workers' Parties: 'Each Party, guided by the principles of Marxism-Leninism and in keeping with concrete national conditions, fully independently elaborates its own policy, determines the directions, forms and methods of struggle, and depending on the circumstances, chooses the peaceful or non-peaceful way of transition to socialism, and also the forms and methods of building socialism in its own country.'[1]

8. Practice Is the Criterion of Truth

The concrete nature of truth gives more evidence of the determining role of socio-historical practice. Practice is not only the basis of the cognitive process, but also the decisive criterion of true knowledge. How can we separate truth from error in our knowledge? After all, 'the stream of truth flows through its channels of mistakes'.[2] The idealist philosophers seek the criterion of truth solely in the sphere of the ideal, within our consciousness:

---

[1] *International Meeting of Communist and Workers' Parties. Moscow, 1969,* p. 37.

[2] Rabindranath Tagore, *Sray Birds,* London, 1926, p. 63.

in the intuitive clarity of thought, in its non-contradictoriness, in the coordination and general meaning of propositions, etc. Yet it is impossible to find the precise criterion (measure) of truth within thought or feeling alone. It is 'intuitively clear' and evident, for example, that the Sun moves round the Earth. According to the Copernican doctrine, however, the scientific truth is different, i.e., the Earth and other planets revolve around the Sun. This has been proved by astronomical observations and experiments in physics.

Unlike idealism, dialectical materialism assumes that our perceptions, ideas, views, theories and so on are reflections, images of the phenomena of the objective world. These images are verified and true images separated from false ones through practice. 'Man must prove the truth, i.e., the reality and power, the this-worldliness of his thinking in practice,' Marx wrote. 'The dispute over the reality or non-reality of thinking which is isolated from practice is a purely *scholastic* question.'[1] Practice is the criterion of truth because it underlies the cognition of reality and because results of the cognitive process are realised in man's objective, material activity. Practice is the only objective criterion of truth insofar as it represents not so much man's mental, but his objectively existing connection with the natural and social world that surrounds him.

In his practical actions man sets definite goals for himself, which express his conception of reality and his knowledge. Success in achieving the aims he has set proves the truthfulness of this knowledge. For instance, the invention and industrial use of the steam engine was practical proof of the objective truth of the scientific knowledge of the laws governing the conversion of thermal into mechanical movement. Higher yields and new varieties of cereals, successes in genetic engineering and medical achievements in treating hereditary diseases—all confirm the validity of modern biological knowledge about the laws of heredity. The victory of socialism in the USSR has in practice confirmed that Lenin was correct in concluding that it is possible to effect a transition to socialism in one country in conditions of the increas-

---

[1] Karl Marx, 'Theses on Feuerbach. In: Karl Marx and Frederick Engels, *Collected Works,* Vol. 5, Moscow, 1976, p. 3.

ingly unequal economic and political development of capitalism at the monopoly stage.

While noting the tremendous importance of practice as the criterion of truth we must also point out its contradictoriness: this criterion is both absolute and relative. It is absolute insofar as there is no other criterion which can establish the truth or falsehood of the results of human thought. It is also absolute because practice can prove the absolute truth. When knowledge is borne out by practice it is true not only objectively but, within certain limits, also absolutely, and is not amenable to change within these limits. At the same time this criterion is also relative. This is expressed, first, in that a particular, isolated act of practice is clearly insufficient to prove conclusively the truth or untruth of a particular piece of knowledge. Secondly, practice is limited by the specific historical stage of the development of industrial, technical and experimental means of influencing the object at each point in time. Human activity is continuously developing in all its forms. Therefore practice, as the criterion of truth, should be considered, as should the process of cognition as a whole, in a historical setting—in connection with a definite level of production, of technology and scientific experimentation and in connection with the relevant social relations and people's social acts.

The continuous development of practice prevents our knowledge being turned into some complete, unchangeable dogma. At the same time, the absolute nature of practice as the criterion of truth makes it possible to distinguish objectively true knowledge from delusions, errors and groundless fantasies.

Now we can take up the dialectic of the cognitive process.

Chapter XI
THE DIALECTIC OF THE PROCESS OF COGNITION

The reflection of reality in man's consciousness is a process during which true knowledge is formed and deepened. It is a complex and contradictory process. It is effected in the interaction of the intellectual and the practical, the subjective and the objective, the sensuous and the rational.

1. How the Truth Is Cognised

We shall begin with an example. In 1934 P. A. Cherenkov, a young Soviet scientist, discovered the luminescence of pure liquids under the impact of radium gamma-rays. This phenomenon was named the Cherenkov effect. The effect was discovered under experiment and through observation several of its properties were determined, among others its clearly expressed direction, spectral composition and character of polarisation. It was impossible to explain the essence of the new phenomenon using only empirical means. What was needed was an in-depth theoretical study of the experimental data. The theory of the Cherenkov effect was developed by the Soviet Academicians I. Ye. Tamm and I. M. Frank in 1937. All three were awarded the Nobel Prize in 1958. Theory demonstrated that the luminescence was caused by electrons. When an electrically charged particle is moving in a medium (not in a vacuum), with a velocity exceeding that of light in it, this particle itself emits light which diffuses as a cone whose axis coincides with the direction of the particle's velocity. The angle at the cone's apex depends on the particle's

velocity and on the refraction coefficient of the medium for the given wave length of the light emitted.

Many experiments have fully borne out Cherenkov's results and Tamm and Frank's theory. Since the refraction coefficient is well known for different media, or can easily be measured, the Cherenkov luminescence effect has become a good way of measuring velocity and even the direction of fast-moving particles. Many methods have been developed, and are widely applied to the recording of charged particles, with the help of the Cherenkov effect. The instruments which utilise this effect are called Cherenkov counters. They have played an important role in the discovery and study of various new elementary particles (antiprotons and others). Cherenkov luminescence is a powerful instrument in the study of cosmic rays and in experiments on accelerators that yield high-energy particles. Cherenkov counters are installed in artificial Earth satellites and in spaceships to study the flow of charged particles of space radiation.

This example well illustrates the general process by which man cognises the world. 'From living perception to abstract thought,' Lenin said, '*and from this to practice,*—such is the dialectical path of the cognition of *truth,* of the cognition of objective reality.'[1] Man's living contemplation, based on practical activity, appears as sensory and empirical knowledge, the former being embodied in a specific cognitive act and the latter in scientific investigation. Living contemplation is the direct source of knowledge. Sensory information is given meaning at the stage of abstract thought (in science—at the theoretical investigation stage), in which the essential aspects in real phenomena are reflected. The aim of cognition is to use the knowledge obtained in practical activity.

2. Sensory Knowledge

Sensory knowledge is the reflection of reality through the sense organs: visual, auditory, tactile, olfactory, and gustatory. The sense organs are the only channels through which information

[1] V. I. Lenin, 'Conspectus of Hegel's Book *The Science of Logic*', *Collected Works,* Vol. 38, Moscow, 1977, p. 171.

about the outside world can penetrate our consciousness. Any process of cognition therefore begins with impressions arising from the action of material objects on the sense organs. Sensory cognition is effected in three main forms, via sensations, perceptions and representations. Sensory cognition is important because it provides direct knowledge of reality. The development of knowledge in all sciences (zoology, physics, chemistry, botany, history, etc.) begins with the direct perception, observation and description of objects and their properties. It is only on the basis of sense perception that factual material is accumulated which forms the groundwork for theoretical generalisations that help discover the laws of nature and society. Similarly, sense perceptions are the initial source of information about the outside world in man's individual development, beginning from infancy.

In its treatment of sensory knowledge, dialectical materialism proceeds from the belief that sensations and representations are the subjective image of the objective world. This means that the source of sensations lies outside the subject. Sense perceptions reflect properties of the objects in the surrounding world, and since cognition is the subject's activity in reflecting reality it includes an element of subjectivity. The subjective nature of sensations is manifested in the fact that an image, being a reflection, does not and cannot exist outside a specific historical individual with his particular anatomical and physiological structure, life experience and psychic make-up. Sensations depend in a defined way on the organism's state as a whole. Honey tastes sour to a sick man. People perceive colour differently; there are some 130 million born colour-blind living on the earth. The subjectivity of sense perceptions does not, however, just refer to pathological cases. Our sense images are subjective because they are not identical to things, their properties and relations. For they are an ideal form of reality reproduced in our mind.

Man's sense perceptions develop in the course of his practical influence on the world. By using various apparata and instruments while exercising this influence man can also indirectly perceive such phenomena as cannot be directly perceived by the sense organs (infra-red and Roentgen rays, ultrasounds, magnetic phenomena, etc.).

Agnostics consider the subjectivity of sensations to be proof

that it is, as it seems to them, impossible to cognise the world using these sensations. They declare that sensations are simple symbols or signs of things rather than their images. It happens sometimes, of course, that sensory knowledge turns out to be erroneous because of the subjective character of perception. Through a visual error, for example, we may take a rope for a snake or a mussel for a silver coin. Does it mean, however, that we must always distrust our sensations and only assess them as a kind of hieroglyph or sign which requires special deciphering?

There is an important epistemological difference between sign and image. Any object can become a sign if invested with meaning. A sign is thus the result of a convention or agreement. Signs may be divided into indices (features, instruments' readings), iconic signs (schemes and drawings), symbols (emblems, coats of arms, etc.) and linguistic signs (those of natural and artificial languages). So, a sign is conventional in character, while an image results from reflection. An image is therefore always akin to an object reflected in some respect. A sign does not usually have such a resemblance. An image presupposes the existence of what is reflected, while a sign may express what does not exist. Finally, an image carries information about the object, while a sign does not contain direct information about it. This explains in particular why it is so difficult to decipher the written characters used by ancient peoples whose language is unknown to science.

It follows from this that to consider sense perceptions to be signs, as is characteristic of the exponents of the so-called 'theory of hieroglyphs' (or symbolic theory of sensations), means to adopt a standpoint of agnosticism. The subjectivity of sensations does not rule out the fact that they are objective both in origin and content and more or less correctly reflect objects and their properties. Man's sensations contain that which really lies outside his perceptions in the surrounding world. Sensory reflection becomes less subjective and more adequate to the objective reality with the interaction of various kinds of sensation, sense perception and thought, as well as with men's practical activity.

Sensation is thus an image of the object rather than its arbitrary sign. While one can criticise the sign theory of sensations for its tendency towards agnosticism, it is at the same time incorrect

to disregard the role of signs in the cognitive process. Signs are indispensable for the functioning of scientific abstract thought today. The essence of the Cherenkov effect, for example, was only explained once fine mathematical calculations were applied to the physics investigations.

3. The Role of Abstractions

What, then, are the features of cognition at the stage of abstract thought? Sense perceptions of separate objects and their properties, and their reproduction in representations, are still insufficient for cognising the objective world. Sensory knowledge is limited in a sense: it reflects the inessential, as well as the essential features of things in one complex; it encompasses only the things that are directly perceived by people, and it reflects the particular rather than the general. To discover general connections and uniformities one needs the activity of thought. It is through thought that a transition is effected from reflecting the external properties of objects to cognising internal and general connections between phenomena, their essence and uniformities. Sensory cognition is direct reflection while thought is indirect, mediated cognition. In other words, sense perceptions are the intermediate link between thought and objective reality. Moreover, man can cognise many phenomena by communicating with other people and by assimilating their knowledge and experience through language. Abstract thought is closely connected with speech and language, and cannot exist without them. Thought is mediated cognition also in the sense that cognition is here effected by logical inferences.

Human thought is not only mediate; it is also an abstract and generalised reflection of reality. The process whereby a number of the properties of an object and the relations between them are discarded, and the property or relation we are concerned with is singled out, or identified, is called abstraction. Man's thought is abstract precisely because it operates with concepts developed as a result of abstraction. Any abstraction also contains at the same time a certain generalisation. The abstraction of identification, for example, helped form such concepts, among others, as 'man', 'animal', 'commodity', 'revolution', 'socialism' and 'capitalism'.

The abstraction of isolation underlies such concepts as 'hardness', 'whiteness', 'kindness', 'cruelty', 'democracy', and others. So-called idealisation is often used in scientific knowledge when an object is taken in its 'pure form': 'a point' (i.e. an object without extension), 'line', 'ideal gas', 'ideally elastic body', etc. There are also other kinds of abstraction. The process of abstracting and generalising is based on the mental operations of analysis and synthesis. The former is the disjunction of an integral object into its components—its properties and aspects—and the mental singling out of its separate features. The latter is a method of mentally combining the elements and properties of the object under study.

4. Forms of Logical Knowledge

The main forms of abstract, or logical, thought are concept, judgement and inference. Concepts reflect the essential and general features of objects and phenomena. Numerous repetitions of the essential features and properties of objects and actions in man's practical activity lead to their being consolidated in his consciousness and fixed as concepts. The nature of the concrete historical practice of the people concerned determines the content of these concepts. For example, the languages of Northern peoples have up to 40 words denoting various kinds of snow, while the same concept held by Southern peoples lacks such detail. Concepts become richer in content with changes in social practice and the deepening of the cognitive process. This was the case, as we have seen, with the concepts of matter, the atom, and so on. New concepts which record the results of mankind's practical and cognitive activity are constantly seeing the light of day in society. Modern man has assimilated such concepts as 'sputnik', 'acceleration', 'neocolonialism', 'military-industrial complex', 'nuclear war', 'inflation', 'detente', 'existing socialism', 'socialist orientation', 'non-aligned movement', 'antiparticles', 'gene', 'quasars', 'green revolution', 'ecological crisis', and others. A genuine and effective reflection of reality requires that every man should master scientific concepts and be able to bring out the connections between them that keep changing in the course of socio-historical practice.

Though concepts are the most important element of abstract thought, logical cognition does not proceed in separate, isolated concepts. The mental, intellectual process that reflects objective relations and properties of things proceeds only in the connections between various concepts. To think is above all to express judgements, orally, in writing or in unspoken thought, about things, phenomena and their properties and about objects' relations to one another. A judgement is a thought which affirms or denies something about an object. Judgements are an important form of thought because they express all the laws of the objective world, all scientific positions. Concepts are also disclosed in judgements. Judgement, along with the concept, reflects the essential features of and the relations between things. But it reflects these relations in an analytical and extended form. 'The atom is inexhaustible', 'a cow is a sacred animal' are judgements that affirm or deny something about certain concepts through other concepts. The first judgement reveals the dialectico-materialist conception of the atom and denies the concept of the atom as an indivisible particle of matter. The second judgement expresses the view of a cow taken by adherents to Hinduism.

Judgement is based on the connections between concepts, while an interconnection of judgements serves as the basis for inferences, the third main form of abstract thought. Inference is a logical process used to deduce new judgements from given true judgements. Thus the two judgements, 'The non-aligned movement is instrumental in furthering the struggle of progressive mankind for peace and against imperialism, neocolonialism, hegemonism, and racism' and 'The Republic of India pursues the non-aligned policy' lead to a logical inference: 'The Republic of India pursues a policy that promotes the struggle of progressive mankind for peace and against imperialism, neocolonialism, hegemonism and racism.'

Inferences make it unnecessary for a thinking man to base each of his judgements directly on his personal sensory knowledge. There is a logical connection between phenomena in the objective world, a necessary relation between the individual, the particular and the universal. These regular relations between things have been reflected in man's thought in the form of basic laws and rules of mental activity, accumulated over centuries of

socio-historical practice in its many forms. Observance of these rules in making judgements and inferences enables man to draw conclusions regarding things that he has not perceived directly.

Our judgements and inferences, the rules by which we form them and the laws of correct thought are studied by logic. We shall not go deeper into this problem, but shall note only that judgements can be affirmative or negative (by their content or quality); individual, particular or general (by the volume or quantity of the objects reflected); conditional, disjunctive or categorical (by the character of the relations between the objects reflected and their properties); and by judgements of possibility, actuality or necessity (by the extent to which the property reflected is essential to the object). There are also different kinds of inferences: deductive, inductive, by analogy, hypothetical, etc.

Different forms of thought enable human knowledge to transcend the bounds of sensory knowledge. Since thought provides knowledge of general elements with regard to things, processes and the connections between phenomena, it makes it possible to cognise the objective world much more deeply than sense perception does. 'Thought proceeding from the concrete to the abstract—,' wrote Lenin, 'provided it is correct (NB)—. . . 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] Cognition, both in the form of abstract thought and sensory knowledge, is a subjective image of the objective world.

Thought intensifies subjective elements in ideal images on the one hand, but on the other increases the degree to which the image coincides with the object reflected, insofar as its essence can be cognised, and the objective content of its reflection deepened. This concerns, in particular, the use of signs and sign systems as a means of abstract thinking. Though the sign itself, as we have demonstrated above, is not an image and results from convention (and it is in this that subjectivity of thought finds expression), nevertheless the application of signs in a defined

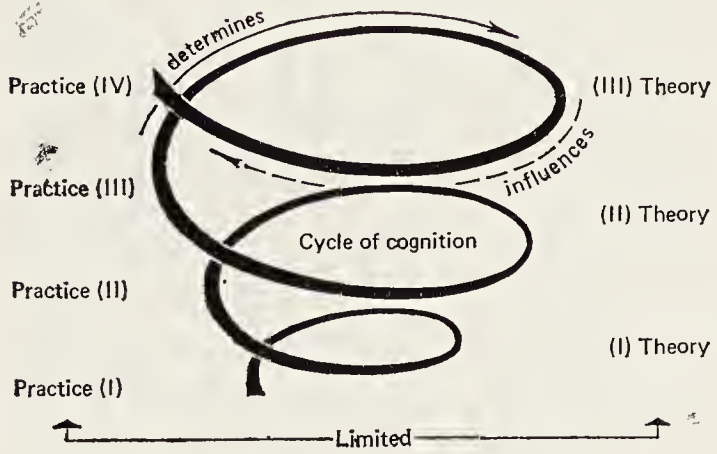
---

[1] V. I. Lenin, 'Conspectus of Hegel's Book *The Science of Logic*', *Collected Works,* Vol. 38, p. 171.

PROCESS OF COGNITION

'Human knowledge is not ... a straight line, but a curve, which endlessly approximates a series of circles, a spiral.'

Lenin



'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.'

Lenin

SENSUOUS KNOWLEDGE	LOGICAL KNOWLEDGE
Forms	*Forms and methods of thinking*
sensations	concepts, judgements, inferences (inductive, deductive, by analogy)
perceptions	comparisons, analysis, synthesis, abstracting, etc.
representations	Hypothesis, Theory

system makes for a more correct reflection of reality. Recourse to signs (e.g. mathematical symbols) in the cognitive process increases the level of abstraction and secures a greater speed and flexibility in conceptual thinking. It makes it possible to perform various operations on signs, to achieve a maximal correspondence between content and form and to make thinking more precise and logical.

5. Doubt, Belief and Intuition

Sensory and logical, or rational, forms of reflection are closely interconnected in the cognitive process. This is not just expressed in the fact that thinking is only possible on the basis of sensory material and that sense perceptions must be interpreted but also in the fact that the activity of reasoning, deliberations over particular phenomena, facts and assertions cause special emotions in people called intellectual feelings. One of these is the feeling of doubt which plays a signal role in the process of cognition. Doubt is a self-evident fact of life. Every person doubts to a certain extent, in one form or another, in one situation or another.

What is the essence of doubt? It is a mental state in which a man experiences a lack of confidence in the truth of something, vacillates between different points of view or opinions and is hard put to solve a particular problem. Epistemologically, doubt is, in essence, the inner 'restlessness' of cognition, the self-criticism of thought. Doubt helps show up the delusions typical of human cognition and directs mind towards the search for the 'bounds' of truth. Doubt is a necessary condition in the research process for the emergence of new problems which must be set and resolved if science is to continue to develop. Doubt helps man overcome dogmatic obsessions and irrational notions which take the form of various prejudices and myths.

Belief or faith is another essential component of the cognitive process. Rational belief, which does not contradict reason or fact and does not reject science (e.g. belief in the unlimited potentialities of cognising the world, the revolutionary's belief in national or social emancipation, man's belief in his own powers), plays a positive role by stimulating the social activity of people. The in-

tellectual feeling of confidence is the principle of, impetus and guide to practical action. It represents man's knowledge, having become conviction, and is enriched with his will, feelings and aspirations.

So-called intellectual intuition also plays a considerable role in cognition. The first doctrines on intuition arose long ago in ancient Indian and Greek philosophy. And later on, many thinkers turned their attention to this feature of the cognitive process. Idealist philosophers conceive of intuition as the direct intellectual grasping of the truth, completely divorced from experience or logical thinking. At first glance, many postulates actually seem self-evident to us and we do not doubt their absolute truth. Such, for example, are the judgements 'the whole is greater than its parts' and 'any two points can be joined by a line'. In everyday life, too, we often make decisions on the basis of 'self-evidence', when an unknown situation that has arisen appears 'clear' to us, rather than on the basis of consecutive, strict reasoning. Intuition bears directly on the work of a scientist inventing something, and on an artist producing an image. Intellectual intuition appears as the sudden solution to a practical, theoretical, artistic or political problem, producing the impression that the truth is being given directly, without the work of sensory knowledge and logic. But this is not the case.

Intuition itself results from long, sustained, thought work and from complex practical activity. It would be wrong to draw a sharp distinction between intuitive cognition and logical thought. An intuitive thought is marked by condensed reasoning and by the realisation of the most important link, particularly of a final deduction, rather than of its entire process. Intuition involves the capacity of thought to skip, as it were, some stages of logical judgement. Yet these interruptions in the logical process have been prepared by preceding logical analysis. In intuitive thought the process of arriving at a conclusion remains unconscious, but the conclusion itself, as a qualitatively new form of knowledge, results from the interaction of various elements in the single cognitive process. The idea of the periodic law of chemical elements, for example, came to Mendeleyev in a dream, but it came as a result of all his scientific activity, of his tireless quest for the laws governing the changes in the properties of chemical elements.

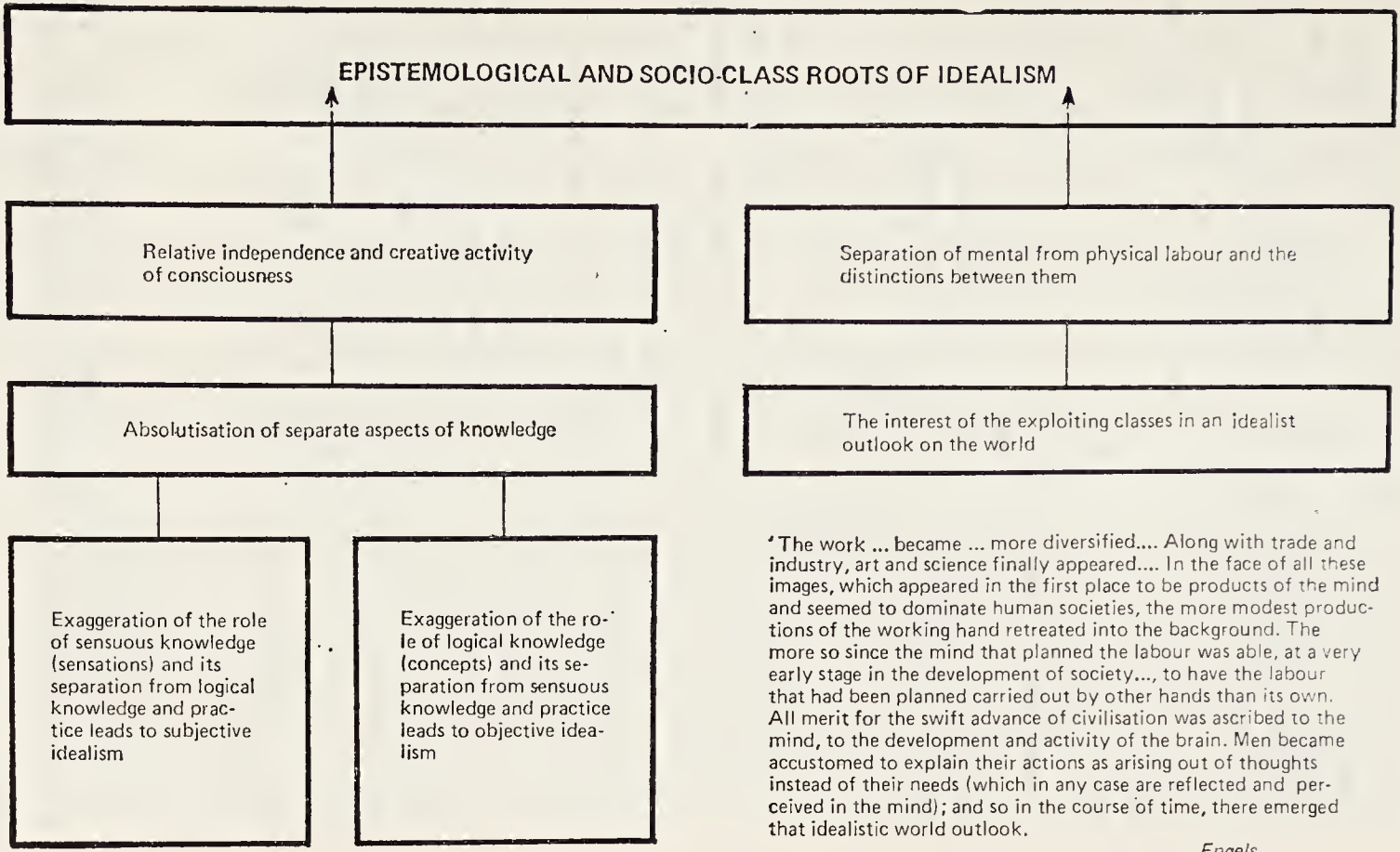
In all cases when intuition is at work, it is conscious activity based on knowledge and experience which is instrumental in formulating new ideas and discoveries regardless of the circumstances which attend their emergence. Moreover, it is important to remember that not everything which is intuitively clear and evident turns out to be true. The results of intuition require logical substantiation and verification for intuitive knowledge is not always corroborated by practice and theoretical analysis. In general, however, intuition extends the potentialities of human cognition by supplementing logical thought, especially in the process whereby man arrives at fundamentally new knowledge.

6. Epistemological Causes of Idealism and Agnosticism

We can now see that there are many facets to the process of attaining the truth. Only through the complex and contradictory interaction of all the elements of the cognitive process can reality be increasingly accurately reflected in man's consciousness. Disregard for any of these elements or, on the contrary, exaggeration of the importance of one element and contrasting it to other features of the process of cognition inevitably leads to errors and delusions. It would be appropriate here to turn to the reasons for the existence of idealistic views. It was pointed out earlier that idealism is a philosophical doctrine of vital concern to various reactionary forces. But idealism is alive not only because it is supported by the exploiter classes and reactionaries. Apart from social causes idealism also has epistemological roots lying in the peculiarities of the cognitive process. 'From the standpoint of *dialectical* materialism...,' wrote Lenin, 'philosophical idealism is a *one-sided,* exaggerated . . . development (inflation, distension) of one of the features, aspects, facets of knowledge into an absolute, *divorced* from matter, from nature, apotheosised.... Rectilinearity and one-sidedness, woodenness and petrification, subjectivism and subjective blindness—voilà the epistemological roots of idealism.'[1]

All varieties of idealist views arise from the absolutisation of

[1] V. I. Lenin, 'On the Question of Dialectics', *Collected Works,* Vol. 38, p. 361.



'The work ... became ... more diversified.... Along with trade and industry, art and science finally appeared.... In the face of all these images, which appeared in the first place to be products of the mind and seemed to dominate human societies, the more modest productions of the working hand retreated into the background. The more so since the mind that planned the labour was able, at a very early stage in the development of society..., to have the labour that had been planned carried out by other hands than its own. All merit for the swift advance of civilisation was ascribed to the mind, to the development and activity of the brain. Men became accustomed to explain their actions as arising out of thoughts instead of their needs (which in any case are reflected and perceived in the mind); and so in the course of time, there emerged that idealistic world outlook.

Engels

one of the cognitive elements. Sensations constitute the source of our knowledge. But they contain much that is subjective. Exaggeration of this circumstance can lead to the idealistic conclusion that things only exist in our sense preception, as asserted by the subjective idealists. Objective idealists, on the other hand, make an absolute of the inherent capacity of thought to form generalisations and divorce concepts from reality, turning them into self-contained entities that are independent of the objective world.

There are also epistemological reasons for agnosticism. One of its forms, scepticism, is brought about by the metaphysical exaggeration and inflation of the moment of doubt. Opposed to knowledge and rejecting objective truth, absolutised doubt is a stand taken by extreme agnosticism. No less erroneous is the absolutisation of intuition. Adherents to the philosphy of irrationalism contrast it to logical thought.

The epistemological stand of dogmatism is formed when all traces of doubt are banished from consciousness and, rejecting the existence of relative truth, the moment of faith is made into an absolute. Dogmatic, unreasonable faith deprives thought of its creative and active basis, prevents the timely bringing out and correcting of mistakes and delusions, makes people passive and acquiescent to obsolescent traditions and customs.

In the history of philosophy both sensualists and rationalists, always drew a distinction between the sensuous and logical aspects of the cognitive process. The sensualists underestimated the role of thought and held that thought could not contain anything except sensations. Such views were held, for example, by the English materialist philosopher John Locke (1632-1704). Rationalists, on the other hand, disregarded the data of sensory knowledge. Rationalism grew, in epistemological terms, from the absolutisation of man's ability to arrive at new knowledge by means of inference. Hegel was a prominent rationalist.

7. Theory and Practice

Man's strength lies in his authentic knowledge. Yet to know is not enough, one must also translate this knowledge into prac-

tice. It was observed long ago that wise words are useless to the man who fears action. How can we agree with the assertion that meditation is the only aim of the cognising mind? Predominant in idealist religious philosophy was the thesis that a philosopher had to stand aloof from life and only contemplate it. A sharp distinction was drawn between theory and practice in pre-Marxian philosophy.

Marxist-Leninist epistemology has overcome the one-sidedness of the previous philosophical doctrines in understanding the cognitive process. Reflection of reality is a complex dialectical process involving the interpretation of the sensuous and rational aspects, of logic and intuition, doubt and faith, reason and intellect, the empirical and the theoretical, the subjective and the objective, the relative and the absolute. In this process of cognition, the object-transforming practice is the basic principle and foundation. And it is its ultimate aim.

The determining role of practice in the process of cognition does not mean any disregard for theory. Scientific theory actively influences practice, explaining and generalising from past practice, directing current practice and forecasting future action.

Advanced revolutionary theory is of paramount importance. Assimilated by the broad popular masses, it becomes through their practical acts a powerful material force of progressive transformation of social reality. At the same time theory is enlivened by practice, corrected by practice, and verified by practice. Practice is the criterion of truth of any theory. The revolutionary struggle of the working class and all working people and the practical activity of Communists have convincingly demonstrated the invulnerability of the theoretical positions and principles of Marxism-Leninism.

Chapter XII
THE UNIVERSAL METHOD OF SCIENCE AND SOCIAL ACTION

The results of the cognitive process are fixed, at the logical thought stage, in the form of concepts reflecting the essential properties and features of the phenomena of the objective world. In their practical activity and daily lives people use various concepts, above all those of everyday speech, such as father, mother, rice, home, river, animal, tree, etc. Special concepts are used in various sciences, such as mass, energy and molecule in physics, species and gene in biology, value and capital in political economy, etc. It is also impossible to do without categories in any discussion of reality.

1. Categories of Dialectical Thought

Categories are philosophical concepts expressing the essential properties of and the most general relations and logical connections between objects of the objective world. They differ from all other concepts in their universal application and maximal conceptual generalisation. Categories appear as general forms of people's thinking activity. Different categories figure as the determining ones in different philosophical doctrines. The chief categories of the idealist Vedānta philosophy, for example, are, among others, moksa, Karma, ātman, purusha, samsāra and dharma. Modern existentialism considers the concepts 'existence', 'nothingness', 'frontier situation', etc., to be categories. Among the categories of dialectical materialism are 'matter', 'motion', 'contradiction', 'quality', 'quantity', 'negation', 'cause', 'possibility', 'form', 'content', 'law', 'chance', and 'essence'.

Materialists and idealists, exponents of dialectics and metaphysics, hold distinctly opposite views on the nature of categories and on other philosophical issues. Objective idealists believe, for example, that categories exist outside and independently of human consciousness in the form of special 'ideal essences'. Subjective idealists either denounce categories as an empty fiction, as words that do not express or denote anything, or present them as inborn, inherent forms of human consciousness denying them any objective content.

The metaphysical approach to categories in the history of philosophy was expressed in contrasting certain categories to others, in ignoring internal connections between them (e.g. that between necessity and chance), and in denying the development of categories.

One can only understand the problem of categories correctly from the position of the dialectico-materialist theory of reflection. The world is, as Tagore wrote, an intertwining of form and non-form; thought engenders sound in it, and the truth—meaning. This image can be interpreted thus: categories are the nodal points of the, at first glance, chaotic network of the phenomena of nature; they help man cognise and master the world. Categories are universal forms of the reflection of reality, and stages in the development of social cognition and practice. They are objective in content and in their origins. This means that in material reality itself there really exist such universal relations and properties of things fixed by man in socio-historical practice and cognition as universal abstractions. For instance, the category of cause arose as an expression of the phenomenon, whereby some events inevitably followed certain others, giving rise to the former, a phenomenon man has observed an infinite number of times. At the same time, categories, as the reflection of objectively existing connections and of the relations between things, are subjective in form. In other words, they are concepts, and hence are a mental, subjective image of reality. They are also subjective in the sense that at each stage of mankind's cognitive and practical activity they express a certain level of man's knowledge of the objective world. Further progress in cognition makes the content of categories richer and deeper, and the degree of coincidence be-

tween the reproduction in the categories of the objectively essential connections and the relations between real phenomena is growing. New categories come into being, which pinpoint the earlier unknown aspects of matter in motion.

In particular, a correct view of the problem of causality is of great importance to man's practical action. The link between cause and effect is a most essential and multiform relation between things. In materialist dialectics, the category of cause expresses a) the objective character of objects' actions upon one another; b) the genetic link between phenomena, i.e., cause necessarily produces an effect; c) the irreversibility of causal action, i.e., a phenomenon as a cause cannot be the result of its own effect; d) the temporal sequence of cause and effect, etc.

Recognition of the objective and universal character of causality does not rule out the possibility that relations between various phenomena and events may be of different orders: necessary and accidental. The category of necessity expresses a rigid connection between phenomena; when such a connection exists it is always obligatory; a necessary phenomenon or event invariably unfolds in a definite order and occurs unambiguously. The opposite category, 'chance', applies to such events and phenomena which are ambiguously connected. That is accidental which can occur in this or that way. As distinct from necessity, chance has its roots and cause in factors outside the thing in question. Yet no matter how opposite necessity and chance are, materialist dialectics requires that they be conceived of together.

Insofar as objective reality appears as the unity of necessity and chance, other categories have also been developed in socio-historical practice and scientific cognition to express it. These are the categories of reality and possibility, essence and appearance, the universal and the individual, content and form. Thus, in a narrow sense, the concept of reality covers phenomena and processes that exert real influence on ongoing events. In fact, all that actually exists (as distinct from imaginary or unreal existence or being *in potentiam*) is real. The category of possibility records incipient trends towards changes in real phenomena that can only be realised under appropriate con-

ditions. Depending on the extent to which these trends have developed, a distinction is drawn between abstract and real possibilities.

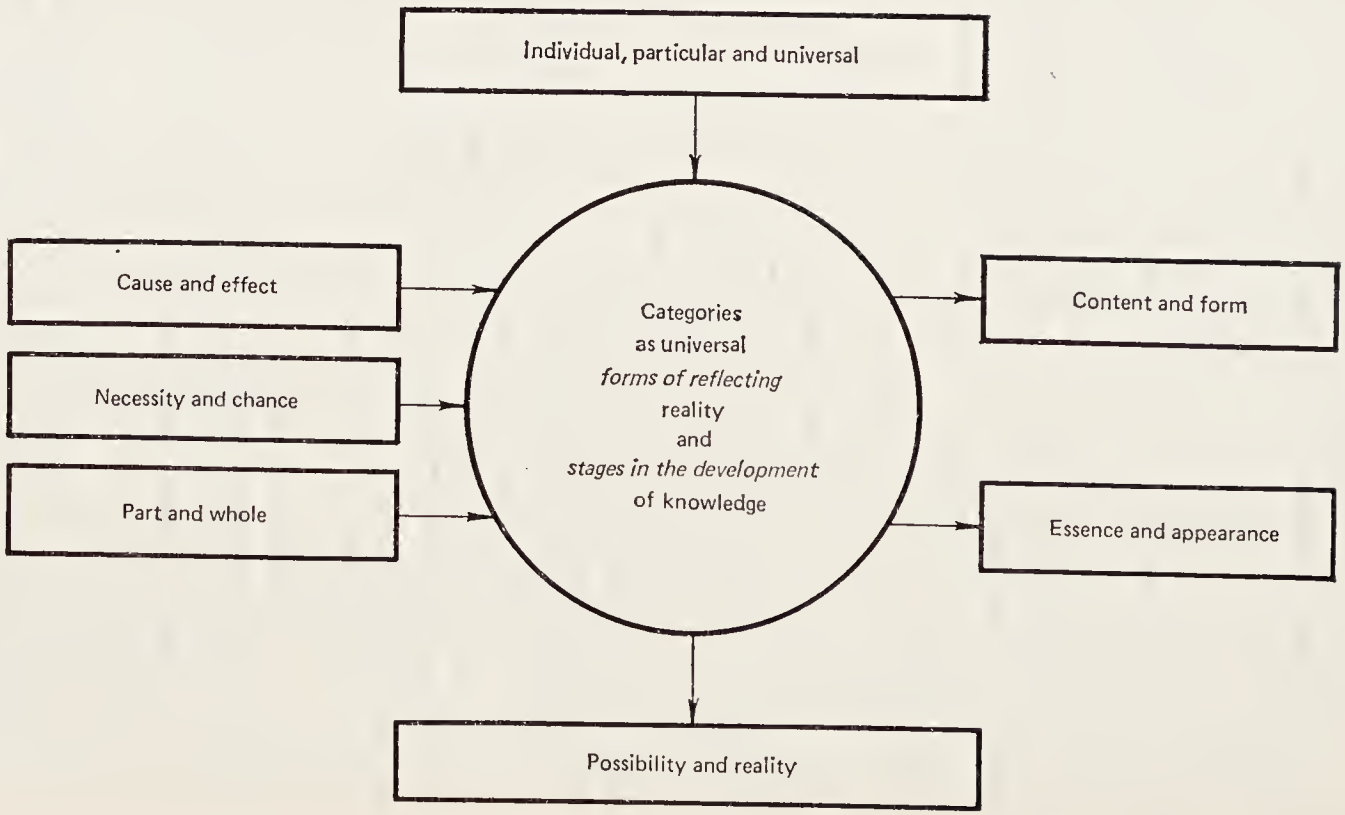
Objects and phenomena of reality appear as systems of different characters and levels, i.e., as totalities of elements connected in a definite way. This circumstance is also reflected in the categories of content and form. The former records the integral set of all the components (elements, aspects, connections and relations) comprising a particular thing and interacting with one another. The category of form expresses the mode of existence and structure of the content, and the way its elements interact.

Alongside the categories of form and content, an important role is played in the cognitive process and in practical action by the concepts 'essence' and 'appearance'. Essence is a category denoting the internal basis of a thing, the sum total of its stable, general, necessary and determinant properties and relations. On the contrary, the category 'appearance' reproduces the outward side of a thing. Appearance is something individual, changeable and largely accidental. It itself owes its existence to the internal features of an object.

An insight into the categories of essence and appearance requires an understanding of the interconnection between the concepts 'universal' and 'individual'. The former category denotes an essential property or internal regularity uniting objects into an integral set; it is 'the universal' which is inherent in many or all things. The individual denotes the totality of features belonging to a given object alone. The individual distinguishes an object from all other objects. It is through this that it appears as something particular or separate. However, there is nothing that is absolutely isolated in the world; apart from individual features, any particular thing therefore contains properties that are common to a multitude of other material formations.

The qualitative variety of objective general uniformities and their increasingly accurate reflection in scientific cognition brings about an internal connection between and development of the categories of thought. The general laws of reality are formulated from the relationship between the different cate-

BASIC CATEGORIES OF DIALECTICS



gories. We know some of them already. These are the basic laws of dialectics. But our knowledge of the universal regularities of matter in motion is not, of course, exhausted by the basic laws of dialectics. Each category of materialist dialectics contains, as if in condensed form, a whole number of laws expressed as judgements in logical form. Some examples of such laws are: 'everything in the world has an objective cause', 'chance is the way that necessity is manifested and supplemented', 'not every possibility turns into a reality', 'content determines form', 'every essence manifests itself, and appearance is essential', 'the universal only exists in and through the particular', and so on. Bringing out these laws, which are sometimes called the non-basic laws, makes the dialectical conception of development much more specific. Only the interconnection of different categories makes the reflection of reality in the cognitive process more accurate. Success in all spheres of practical activity hinges on man's ability and capacity to think and act dialectically.

2. The Unity of Dialectics, the Theory of Knowledge and Logic

Thinking in categories of dialectics belongs to the domain of logic. Dialectical materialism represents the unity of the dialectical theory of knowledge and logic. What does this mean? An answer to this question first of all requires that one refer to some facts from past philosophies.

Prior to Marxism, philosophy was broken down into so-called ontology (the doctrine of being), gnosiology (the doctrine of knowledge) and logic (the science of the laws and forms of thought). In some philosophical systems these separate fields were completely divorced from one another within the philosophy. This was especially true for Kant. For Kant, ontology was a doctrine of 'things-in-themselves', of which, strictly speaking, we have no knowledge. Earlier still, the 'doctrine of being' had been presented as a doctrine of the objective existence of the world of immutable ideas (Plato), as the actual reality of Brahman's absolute spirit (Vedānta philosophy), as

rigid material substance (Spinoza), and so on. Such approaches made 'ontology' an out-and-out metaphysical doctrine.

The approach of most pre-Marxian philosophers to the cognition of the world was just as undialectical. In epistemology, metaphysics was evidenced in the one-sided approach taken by empiricists and rationalists, in the relativisation of the cognitive process, and in dogmatism and contemplativeness. As for logic, the third component of pre-Marxian philosophy, it knew only one kind—formal logic.

Formal logic studies the structural side of thought, describing the simplest logical devices and demonstrating the rules by which certain judgements are deduced from others. What is more, it abstracts the various forms of thought (concepts, judgements and inferences) from their development in time, from some definite, concrete content. The laws of formal logic express the essential link between the ideas formed within one and the same judgement. Its basic laws are a) the law of identity ('Every thought about a thing must remain unchanged throughout a given reasoning: A is A'); b) the law of contradiction ('If of two judgements, one affirms what is negated by the other, one must be false: A cannot be B and not be B at one and the same time'); c) the law of excluded middle ('Where there are two judgements, one of which affirms what is negated by the other—A is B and A is not B'—there cannot be a third, middle judgement); d) the law of sufficient reason ('It is necessary to think on a sufficient reason'), i.e., every idea, every judgement, must have a defined logical basis. Insofar as all phenomena of the objective world are relatively stable and definite the observance of these laws is a prerequisite for correct thinking. At the same time, compliance solely with the demands of formal logic is clearly insufficient to cognise reality, which is changing and conceptually varied. Formal logic itself, like any science, is not metaphysics, but the absolutisation of its propositions and laws in pre-Marxian philosophy served as a basis for the metaphysical method of thought, for a theoretical justification of metaphysical views on being.

Hegel was the first to attempt to find another approach to the correlation of ontology, epistemology and logic and to overcome the earlier gap between them. But Hegel proceeded from

the idealistically conceived principle of the identity of thought and being. The laws of thought were simultaneously for him the laws of reality. For, according to his doctrine, everything was based on a certain idea, on thought as such. The whole development of being was therefore the cognition by thought of itself. For him, in fact, the whole of philosophy turned into logic, in which he also submerged ontology and epistemology.

Marxist-Leninist philosophy adopts a fundamentally different approach to this problem. Dialectical materialism proceeds from the idea of a unity of being and cognition rather than from the difference between them or their absolute identification. This unity lies in the dialectical nature of the objective world and its reflection in human consciousness. It is this unity that comprises the essence of the thesis that dialectics, logic and the theory of knowledge are, strictly speaking, one and the same thing in Marxist philosophy. In other words, reality can only be reflected correctly in man's mind when it is reproduced dialectically by thought. It follows that the coincidence, or identity, of dialectics (the doctrines of universal laws of nature, society and thought), and the theory of knowledge and logic concerns dialectical logic alone.

Unlike formal logic, which pinpoints stability in the objects of thought, dialectical logic is tantamount to thinking in terms of categories within the unity of opposites. It is a doctrine of how human ideas and concepts reflect the infinitely developing and changing objective world. Dialectical logic is essentially a conceptual logic, for the main thing in it is the accurate reflection in thought of the specific real content of developing reality. Finally, as distinct from formal logic, dialectical logic deals with forms of thought while they are developing rather than with ready-made concepts, and studies concepts as they arise and move. Only in movement is thought capable of developing from appearance to essence, from the external to the internal, from the particular to the general, from the accidental to the necessary, and from relative truths to the absolute truth.

Marxist dialectical logic makes several demands on thought. The most important of them were expressed by Lenin in the following way: '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".... 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] These requirements apply, of course, only to some aspects of dialectical logic, but they clearly express the main thing, viz. the function of Marxist philosophy to constitute the theoretical weapon of the working class and all working people in the revolutionary remaking of reality. 'But this [Marx's.—*Ed.*] way of viewing things,' Engels said, 'is not a doctrine but a method. It does not provide ready-made dogmas, but criteria for further research and the method for research.'[2] As a method of conceiving reality scientifically, dialectical logic differs from all varieties of metaphysical thinking.

3. Dialectical Logic Versus Sophistry and Eclecticism

Who thinks metaphysically? He who reasons abstractly, using ossified dogmas without thinking and disregarding the features of the specific historical situation. A vivid example of metaphysics today is the way the Maoists have made an absolute of the thesis 'Power grows from the barrel of a gun'. We have already noted that Marxism-Leninism recognises that revolutionary violence does have a certain role in history. But it is deeply erroneous and harmful to put exclusive emphasis on force in solving social questions. The Maoist idea mentioned above serves as a theoretical justification for the policy of great-power hegemonism and for illegal claims on foreign territories.

---

[1] V. I. Lenin, 'Once Again on the Trade Unions, the Current Situation and the Mistakes of Trotsky and Bukharin', *Collected Works,* Vol. 32, Moscow, 1965, p. 94.

[2] 'Engels to Werner Sombart in Breslau'. In: K. Marx and F. Engels, *Selected Correspondence,* Progress Publishers, Moscow, 1975, p. 455.

Dogmatism in thought is closely connected with sophistry and eclecticism, which are also varieties of metaphysics disguised as dialectics.

Sophistry consists in some accidental feature being torn out of context and used to characterise the phenomenon as a whole and in identifying various objects on the basis of superficial similarity. Eclecticism is manifested when an all-round consideration of an object is discarded and it is replaced by a formal combination of the object's features without any classification of their relationship or isolation of what is most important. Unlike sophistry, dialectical logic requires a comprehensive and multifaceted approach to the object. It differs from eclecticism in that it does not signify a superficial combination of any features in the difinition of things, but requires that their internal connection be established. Dialectical logic urges the singling out of the feature which acts as the basic and decisive one in particular specific circumstances, determined by people's practical goals.

Sophistry and eclecticism serve as the philosophical basis for all kinds of reactionary concepts. One example is the theory of 'rich' and 'poor' nations widely advertised in recent years in some countries, including India. Its main tenet is that the world is divided according to the richness/poverty principle into two parts, rich North and poor South. The first group includes, apart from the developed capitalist countries of North America and Western Europe, also the Soviet Union and other East European socialist countries. The second group comprises the countries of Asia (except Japan), Africa and Latin America. Insofar as there is a large difference between the two groups in their economic development levels and gross national product per capita, the conclusion is reached that the conflict between 'rich' and 'poor' nations has now eclipsed all other social contradictions.

The 'rich North—poor South' idea is often used to blame all 'rich white nations' for the backwardness of the developing countries, for the poverty and destitution of their populations. But to lay equal responsibility for this on both imperialist and socialist states is to indulge in sophistry.

It is a universally known fact, of course, that many socialist

states have achieved the heights of progress, social wealth and culture. Does it follow from this, however, that the socialist and imperialist countries are similar and can be considered together as one group as indicated by their wealth? Surely the main thing is not how rich this or that country is, but how it has become rich and how fairly its wealth is distributed.

The source of the capitalist monopolies' wealth lies in the merciless exploitation of wage labour, in plundering the working people of former colonies. At the turn of this century, for example, Britain appropriated up to 25-30 per cent of India's national income. In the beginning of 1981, the developing countries' foreign debt exceeded 400,000 million dollars. As to the distribution of wealth in capitalist countries, here is one example: A mere five per cent of US population appropriates 53 per cent of national private wealth, and one per cent holds 72 per cent of all shares.

Now let us turn to the socialist countries. The people of the socialist countries have created their wealth and improved their well-being through their own efforts, through the selfless labour of their workers, peasants and socialist intelligentsia. The Constitution of the USSR says: 'The source of the growth of social wealth and of the well-being of the people, and of each individual, is the labour, free from exploitation, of Soviet people.... Socially useful work and its results determine a person's status in society.' (Art. 14). Socialism creates all the conditions for smoothing out the economic and cultural development levels of different peoples. Convincing evidence of this is provided by the building of socialism in the USSR.

Kazakhstan and Central Asia were the backward outlands of tsarist Russia. After the victory of the socialist revolution modern industry was built in these areas on an up-to-date technical basis in a short period of history and one hundred per cent literacy has been achieved today. Almost half the population have had secondary or higher education. The Soviet Central Asian republics now train more specialists than such developed capitalist countries as Britain or the Federal Republic of Germany.

We can see, then, that the concept of rich and poor nations distorts the image of the modern world. The bourgeois theoreticians and Maoists are trying to conceal the main contradic-

tion of our epoch—that between the two socio-economic systems—behind sophistic arguments about the alleged 'antagonism' between the developing states and the socialist countries (as 'rich' countries). In actual fact, however, there is no antagonistic contradiction between world socialism and the developing countries. Such a contradiction does, however, exist between imperialism and its former colonies. The socialist countries have never exploited the Asian, African, or Latin American countries. On the contrary, they are establishing economic relations of a new type with them, which are based on principles of equality, mutual advantage, and the rendering of international assistance in the struggle against imperialism and neocolonialism.

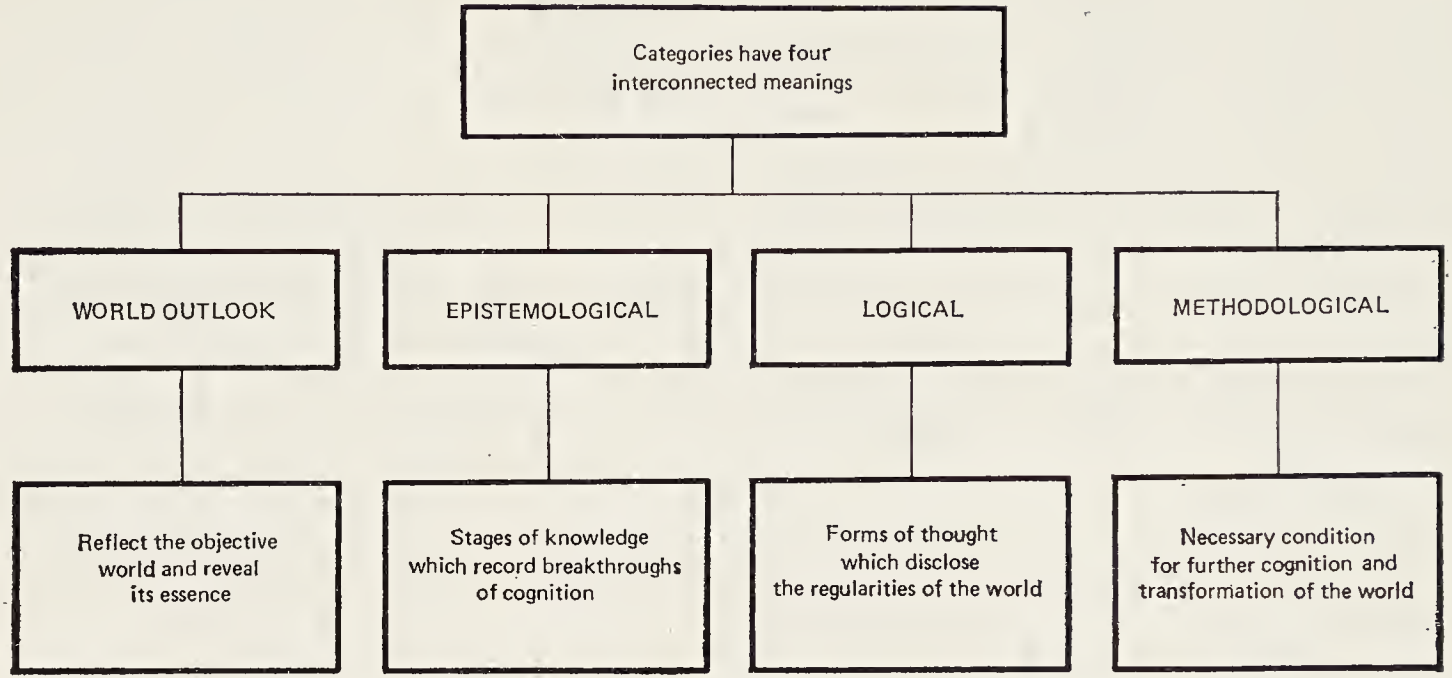
More than a thousand industrial and other economic projects have been or are being built in Asia, Africa and Latin America with Soviet assistance. Relations between the Soviet Union and the Republic of India are based on mutually advantageous and equitable cooperation in the economy, in technology, science, culture and art. The overall trade turnover between the two countries has grown more than 620-fold, from 17.5 million rupees in 1953 to 10,900 million rupees in 1978. In 1980 this trade turnover more than doubled over the 1975 level. At the 26th Congress of the CPSU Leonid Brezhnev stressed the logical character of the restructuring of international economic relations on a democratic foundation. At the same time he noted that 'certainly, the issue must not be reduced, as this is sometimes done, simply to distinctions between "rich North" and "poor South" '.

Thus the 'rich North—poor South' theory is built on sheer sophistry. Other bourgeois and revisionist sociological theories of today are also similarly metaphysical in their essence. Many bourgeois authors, who give a one-sided interpretation of certain features of the social development that has taken place during the scientific and technological revolution, have advanced the theory of the 'convergence' of capitalism and socialism. They would make us believe that modern technical progress has, as it were, changed the nature of capitalism and brought it nearer to socialism, which is also undergoing essential transformation. They allege, therefore, that the two societies will inevitably con-

verge into a 'single industrial society' which will 'synthesise' the positive aspects of socialism and capitalism. But 'convergence' is an illusion. Its proponents want to retain the principle of private property and other 'good' aspects of capitalism and to 'remove' many 'bad' aspects, such as social antagonism, the anarchy of production, the class struggle, and others. It is eclecticism pure and simple. For all the 'bad' aspects of bourgeois society are an inevitable result of the—according to capitalist ideologists—'good' aspects. It is private property in the means of production that engenders the exploitaion of man by man, class antagonism, unemployment, economic crises and other 'bad' features of the capitalist system. As for socialism, it presupposes a highly developed material and technical basis but, as we know, is by no means reduced to it. Socialist relations are based on the social ownership of the means of production. They rule out the exploitation of man by man and are expressed in the planned, proportionate development of the economy, so that the material and spiritual requirements of members of society are met to the maximum. In providing social equality and unity they create all the conditions for the all-round development of the individual. Essentially, such relations can only arise once the capitalist form of property has been abolished.

The idea of 'the plurality of models of socialism', upheld in bourgeois literature, does not hold water either. Of course, socialism in each country takes on its own particular character in solving, for instance, the agrarian question, in its methods of establishing proletarian dictatorship, and the forms it may take, etc. Revisionists, however, sophistically inflate these national and historical features characterising different ways of building socialism and even advance a thesis of the existence of 'models of socialism' that differ fundamentally from one another, such as the Soviet, Yugoslav and Czechoslovak models. This idea often takes the form of the conception of 'national socialism' on a religious basis ('Islamic socialism', 'democratic socialism on Gandhiist principles', etc). In all such concepts the particular is incorrectly contrasted to the universal. The truth is, however, that the universal and the particular are dialectically interconnected. There are general uniformities in the development of revolution and the building of socialism, and a deep understand-

SIGNIFICANCE OF CATEGORIES OF MATERIALIST DIALECTICS



ing of these uniformities and a reliance on them, combined with a creative approach and a consideration of the specific conditions of each country, have always been an inalienable feature of Marxists-Leninists. Such general uniformities are: the leadership of the working masses by the working class, headed by the Communist party, in accomplishing the proletarian revolution and establishing the dictatorship of the proletariat in some form; the alliance of the working class with the bulk of the peasantry and other strata of the working people; the abolition of capitalist property and the establishment of social ownership of the basic means of production; the gradual transformation of agriculture on socialist lines; planned economic development aimed at building socialism and communism and raising the living standards of the working people; a socialist revolution in ideology and culture and the creation of a sizable intelligentsia loyal to the working class and all working people and the cause of socialism; the eradication of national oppression and the establishment of equality and fraternal friendship among peoples; the defence of socialism's gains from the encroachments of external and internal enemies; and proletarian internationalism, i.e., the solidarity of the working class of a particular country with the working class of other countries.

These examples show the importance of complying with the requirements of dialectical logic to gain a correct understanding of reality. This also fully applies to the interrelationship between philosophy and the special sciences.

4. Natural Philosophy and Positivism

In the history of cognition philosophy and science make up a single intellectual process whereby man comprehends objective reality and forms his own world view, a process based on social practice. But the relationship between philosophy and science has changed substantially in the course of cognition. At the early stages of the development of culture, philosophy, natural science and rudimentary knowledge about society were fused into a single, undifferentiated science. Later on, the special sciences (mechanics, mathematics, astronomy, and subsequently geology, biology, physics, chemistry, history, etc.) began

to branch off from this single science and hence from philosophy. This differentiation of knowledge is continuing and even speeding up today. At the same time, in our age the opposite tendency can be seen all the more clearly: the integration of science, evident in the formation of various borderline regions of knowledge (physical chemistry, geochemistry, biophysics, etc.), in the appearance of several general scientific disciplines (cybernetics, general systems theory, information theory), and in the growing synthesising function of philosophy.

The historical evolution of the correlation between philosophical and specifically scientific knowledge was theoretically interpreted in different ways. The first stage in the development of cognition was dominated by so-called natural philosophical conceptions of science. The aim of natural philosophy was to work out an all-encompassing and complete knowledge which would apparently reveal the absolute essence of things to man. Speculative reasoning was proclaimed as the method of this form of cognition. With regard to the special sciences which seemed to provide only incomplete and relative knowledge, philosophy was the 'science of sciences', the supreme criterion of truth. However, with the progress of knowledge it transpired that philosophy's claims to a mastery of absolute truth were invalid. Natural philosophy began to act as a brake on the development of the special sciences, which caused the emergence of positivism in the 1830s.

Positivism proclaimed the aim of cognition to be the description of what happens and how it happens rather than an explanation of the reason why it happens. According to positivism, sensory data are described and facts accumulated using the method of empirical investigation. Only concrete things and events are real, and science can only deal with knowledge of what is given directly to the senses. There is no such thing as 'the general' and absolute truth is a fiction. These premises led to the conclusion that the special sciences do not need philosophy, its traditional problems are pseudoproblems, and if philosophy does have a right to exist, then it has this right solely in its function of summing up and coordinating the data of the special sciences.

These two sides to the one-sided interpretation of the correla-

tion between science and philosophy find expression in modern bourgeois philosophy. The natural philosophical approach is particularly characteristic of the religious Neothomist philosophy, a philosophy of the Catholic Church that proclaims the primacy of faith over knowledge. For Neothomists the truths gained through faith by means of divine revelation are unconditional and absolute. The knowledge attained by the means of human reason is of a lower order and needs the constant control of faith. Philosophy itself functions as the servant of theology. Neothomism sets up a strict hierarchical principle according to which theology is the apex of knowledge, philosophy is its middle, and the other sciences are its pedestal.

Characteristic of the various neopositivist schools is a scientistic interpretation of knowledge. Neither religion nor philosophy are considered the subject-matter of science. On the one hand this tends to remove scientific criticism of religious views on the pretext of their 'extrascientific' character, and on the other dismisses the philosophical problems concerning the relationship between matter and consciousness, the cognition of objective truth, causality, etc. as devoid of scientific value. The competence of philosophy is limited solely to an analysis of the logical structure of scientific propositions and theories. Thus, neopositivism replaces philosophy with a variety of modern formal (symbolic) logic and gives religion carte blanche to operate outside science.

The anti-scientistic approach to the relationship between philosophy and science has also gained some currency today. Certain bourgeois philosophical doctrines (e.g. existentialism) treat science as a force allegedly alien and inimical to man, a force that leads to the destruction of cultural values. Existentialists maintain that philosophy is incompatible with science and see philosophy's task solely in analysing the individual's spiritual world, his consciousness and emotions, in bringing out the purport of his existence, rather than in generalising from scientific data and explaining reality in conformity with them. Anti-scientism proceeds from the assumption that science's possibilities are limited when it comes to solving the fundamental problems of human existence.

Many bourgeois philosophers deny the scientific character of

philosophy and draw a distinction between philosophical knowledge of the world and scientific cognition in their attempts to deideologise science, to 'purify' it of world outlook, philosophical elements and thus to exclude it from the contemporary ideological struggle. Yet it is precisely because of the growing role of science in the life of society that the scientist's social position, and his philosophical and methodological orientation are acquiring particular importance today. Today it is becoming increasingly clear that the outright distinction between philosophy and concrete scientific research is utterly untenable. No wonder the basic theme of the 16th World Congress of Philosophy was Philosophy and Problems of World Outlook in Modern Science.

5. Dialectical Materialism and the Special Sciences

The interpenetration of philosophical and special scientific knowledge is objectively based on the unity of the general and particular in reality itself. This dialectical unity determines the reciprocal interest of philosophy and the special sciences in each other. Philosophy cannot exist and fruitfully develop if it does not rely on concrete knowledge about phenomena and the laws of nature and society. The very emergence of dialectical materialism, as we have seen, was due among other things to 19th century progress in natural science. While drawing attention to the internal connection between philosophy and the special sciences, Engels wrote: 'With each epoch-making discovery even in the sphere of natural science it [materialism] has to change its form; and after history also was subjected to materialistic treatment, a new avenue of development has opened here too.'[1] Having arisen, dialectical materialism in its subsequent development has invariably relied on concrete scientific data and generalisation from social practice. Scientific breakthroughs in cognising nature and the laws of social reality enrich philosophy with new problems, bring out different approaches to them, and make the categories and laws of materialist dialectics more meaningful and important.

Without a close link with the special sciences philosophy de-

[1] F. Engels, 'Ludwig Feuerbach and the End of Classical German Philosophy'. In: Karl Marx and Frederick Engels, *Selected Works,* Vol. 3, Progress Publishers, Moscow, 1973, p. 349.

generates into a scholastic theory or an irrationalistic doctrine. Neither can a scientist be indifferent to philosophy. Furthermore, not every philosophy can serve as a correct guide in his activity, as the reader has learned from the crisis in physics at the turn of the century, caused by the metaphysical views of nature predominant among some scientists of the time. Lenin had precisely this in mind when he wrote that 'no natural science and no materialism can hold its own in the struggle against the onslaught of bourgeois ideas and the restoration of the bourgeois world outlook unless it stands on solid philosophical ground. In order to hold his own in this struggle and carry it to a victorious finish, the natural scientist must be a modern materialist, a conscious adherent of the materialism represented by Marx, i.e., he must be a dialectical materialist.'[1]

What significance does the philosophy of dialectical materialism have for scientific investigation? Philosophy has various connections with the special sciences. First of all, dialectical materialism underlies the world outlook of the scientist. Philosophy implements this function by integrating the conclusions of concrete scientific knowledge and by revealing the general in the specific. A relative wholeness and systematisation in human knowledge of the world compensates for discrete knowledge of reality existing in the special sciences in each particular point in time. Dialectical and historical materialism also serves for the scientist as a system of social values and of ideological and political direction. Dialectical materialism performs this function as the ideology of the working class, destined by history to engage in a revolutionary transformation of society on the principles of social equality, justice, peace and humanism.

6. The Methodological Function of Materialist Dialectics

Special mention should be made of the methodological function of dialectical materialism. Methodological problems are of prime importance in scientific research. The method of cognition is, as we know, a sum total of various means and operations used to achieve an aim set by the researcher, be it the dis-

[1] V. I. Lenin, 'On the Significance of Militant Materialism', *Collected Works,* Vol. 33, Moscow, 1966, p. 233.

covery of a fact, the formulation of a law or the solution to a problem. Each science has its own methods of reflecting reality: in physics it is the method of spectral analysis; in mathematics, mathematical induction; in chemistry, qualitative analysis; in history, the study of sources; in cosmogony, the method of radioactive decay; in metallurgy, the determination of heat-resistant alloys; in electronics, integral microschemata, etc.

Apart from these particular methods used to study certain real phenomena within the framework of one science, there are also general scientific methods used in the cognitive process. Different modern sciences apply such methods, among others, as experiment, induction and deduction, observation, analysis and synthesis, modelling and formalisation. Also included among the general scientific methods used at certain stages of the research process to reflect particular aspects of the object being studied, are the mathematical, statistical, systems-structural and cybernetic methods. Some of these methods are used predominantly at the empirical level (observation, experiment, analysis, induction and deduction, etc.), while others are used at the theoretical level (formalisation, axiomatisation, mathematical method, etc.).

The attainment of the objective truth requires the use of the dialectico-materialist method, which must be applied at all levels and stages of the cognitive process and in the study of all spheres of reality. The method of materialist dialectics is the universal method of modern science. The methodological function of dialectical materialism is closely linked with its essence as world outlook. The theory and method of Marxist-Leninist philosophy form a single whole. The general laws and categories of materialist dialectics, logically expressed in the form of a philosophical theory, become the methodological principles of investigation in the special sciences.

In moulding a scientific world view, materialist dialectics has also become an instrument for attaining new knowledge. Only with the method of materialist dialectics can we solve the problems arising in modern physics. How can we, for instance, understand the fusion of space and time into a whole, as asserted by the theory of relativity? Is it absurd that discrete particles combine with continuous waves, as quantum mechan-

ics holds? How can we conceive of the transformation of particles of matter into non-material light and of light into substance, as is maintained in quantum electrodynamics? How can we understand the mutual transformability of fundamental particles of matter as held in the theory of elementary particles? Modern science seeks and finds a method for solving these and other problems in materialist dialectics. The major objective of natural science today is to cognise the all-round, universal regularity of developing nature and to express it in such concepts which, as Lenin insisted, should be 'flexible, mobile, relative, mutually connected, united in opposites, in order to embrace the world'.[1]

When scientists consciously use the method of dialectical materialism they promote the development of natural science. Such outstanding scientists as Paul Langevin (France), John Bernal and Cecil Frank Powell (Britain), Shoichi Sakata (Japan), V. A. Ambartsumyan, S. I. Vavilov and N. N. Semyonov (USSR) have clearly demonstrated the signal importance of the dialectical materialist method in scientific advances. Jawaharlal Nehru described the paramount importance of Marxist philosophy in the understanding of historical events as follows: 'A study of Marx and Lenin produced a powerful effect on my mind and helped me to see history and current affairs in a new light. The long chain of history and of social development appeared to have some meaning, some sequence, and the future lost some of its obscurity.'[2]

In what ways does the methodological function of materialist dialectics manifest itself? First of all, in interpreting scientific discoveries, elucidating their role in the system of knowledge, explaining their philosophical significance. One example is Lenin's explanation of the essence of discoveries in early 20th-century physics not as the disappearance of matter, but as the discovery of new forms of matter in motion. Another example is the way materialist dialectics considers the indeterminacy principle in physics not as the negation of all causality, but as the discovery of a new form taken by the objective laws—sta-

[1] V. I. Lenin, 'Conspectus of Hegel's Book *The Science of Logic*', *Collected Works*, Vol. 38, p. 146.

[2] Jawaharlal Nehru, *Discovery of India*, p. 29.

tistical regularities—in accordance with the dialectical principle of the unity of necessity and chance, and so on.

Secondly, the methodological function of philosophy is manifested in forecasting, on the basis of materialism and dialectics, the main trends of scientific cognition. It is here that the heuristic character of the dialectico-materialist method comes to light. Engels predicted, for example, that the development of chemistry would help explain the dialectical transition of non-organic matter into living organisms. Modern science has borne out this prediction. Lenin's idea of the inexhaustibility of the electron is a clear example of scientific prediction with regard to the prospects for research into nature.

Thirdly, the methodological significance of dialectical materialism for the special sciences is expressed in the selective essence of its principles. Most authentic and forward-looking scientific hypotheses can be selected according to the best possible conformity with the principles of materialism and dialectics. For instance, the principle of the material unity of the world, that of the unity of matter and motion, of determinism, etc. serve as grounds for disproving parapsychological hypotheses of the existence of extrasensory perceptions and telekinesis; hypotheses of primordial matter and eternal life run counter to the dialectical principle of the development of matter, and so on.

While arguing for the methodological significance of Marxist-Leninist philosophy to the special sciences, one should at the same time warn against possible mistakes in the practical application of the method of materialist dialectics. It would be wrong, for example, to try to solve a particular scientific problem or substantiate the truth of a specialist conception only on the basis of general philosophical principles. Analysis of the facts cannot be replaced by references to general propositions of dialectics. This would be a revival of the 'natural philosophical' attitude to science, which is in principle incompatible with the dialectico-materialist conception of the essence of the way man cognises objective reality. Close unity and oneness rather than subordination or mutual disregard—this is the essence of the relationship between Marxist-Leninist philosophy and the special sciences of nature and society.

BREAKTHROUGHS OF MODERN BIOCHEMISTRY
BEAR OUT ENGELS'S PREVISION

7. Guide to Action

The methodological function of dialectical materialism is evident not just with respect to scientific cognition. Philosophy has always been connected with politics, with the struggle of classes and parties. The true purport and mission of Marxist-Leninist philosophy is to promote a revolutionary transformation of the old, and the building of a new, communist, society. For com-

munists, Lenin stressed, revolutionary theory is 'primarily and predominantly . . . a *guide to action*'.[1] Communist and workers' parties base their activities on objective social dialectics. In modern conditions this dialectics has become very intricate and contradictory, and can only be scientifically elucidated from the standpoint of dialectical and historical materialism.

The need to use different forms and methods of political struggle in rapidly changing conditions, while constantly keeping the ultimate goal of the working class in mind, requires great flexibility from communist and workers' parties in thought and action. They have to be able to determine the best ways to achieve their goal and to consistently accomplish particular tasks, which gradually, step by step, ensures success in the revolutionary struggle. This can only be achieved using the dialectical method. One should make the point here that the methodological function of cognition and social action is exercised, not by the categories and laws of dialectics taken in and of themselves, but by the requirements on the thinking and acting social subject formulated on their basis.

Of course, Marxist dialectics does not lay down the law with regard to every particular social action, for it by no means claims the role of a universal 'instruction'. Dialectical and historical materialism require 'a concrete analysis of a concrete situation'.[2] They formulate the basic principles of such analysis and consequently of the practical social action of the revolutionary class. These principles can be broken down into three groups: general philosophical, general sociological and socio-philosophical.

All principles of materialist dialectics should be classed as general philosophical regulatives of social action. The most important of these have been mentioned above as requirements of dialectical logic. Success in practical activity is determined by several factors such as: to what extent is the totality of various relations among classes taken into account by the revolutionary forces; whether these relations are considered in their develop-

[1] V. I. Lenin, 'Letters From Afar', *Collected Works,* Vol. 23, Moscow, 1964, p. 330.

[2] V. I. Lenin, *'Kommunismus.* Journal of the Communist International for the Countries of South-Eastern Europe (in German)', *Collected Works,* Vol. 31, Moscow, 1974, p. 166.

ment; whether their analysis of reality is based on the principle of objectivity; whether the unity and struggle of opposites is identified by them, as are the transition of quantity into quality, negation and recurrency in development, the dialectics of content and form, etc.

This, however, is not enough to lead the political struggle of the working class. General sociological requirements are indispensable here. These are the principles of historical materialism as a general sociological theory of Marxism-Leninism. According to this point of view it is necessary to proceed in the practice of revolutionary struggle from the fact that 'the mode of production of material life conditions the general process of social, political and intellectual life'[1]; that the 'history of all hitherto existing society [except that of the primitive society] is the history of class srtuggles'[2]; that at a certain stage of development the material productive forces of society come into 'conflict with the existing relations of production'; that 'the changes in the economic foundation lead sooner or later to the transformation of the whole immense superstructure'; that it is people themselves who make their history, but on the basis of objective conditions attending the production of material life creating the basis for their entire historical activity,[3] and so on.

Socio-philosophical principles are also very important in the practical activity of the progressive forces of society. These methodological guidelines of social action are formulated within the philosophy of dialectical materialism, account being taken of the dialectics of social development. Marx, Engels and Lenin gave such methodological advice to those intending to bring about revolutionary action: one must know how to take 'due account of the *objective* content of a historical process at a given moment, in definite and concrete conditions';[4] 'at each partic-

[1] Karl Marx, *A Contribution to the Critique of Political Economy,* Progress Publishers, Moscow, 1977, pp. 20-21.

[2] K. Marx, F. Engels, 'Manifesto of the Communist Party. In: Karl Marx and Frederick Engels, *Collected Works,* Vol. 6, Moscow, 1976, p. 482.

[3] Karl Marx, *A Contribution to the Critique of Political Economy,* p. 21.

[4] V. I. Lenin, 'Under a False Flag', *Collected Works,* Vol. 21, Moscow, 1964, p. 143

ular 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'[1]; to proceed from the real rather than from the possible[2]; to be able to 'combine opposites'[3]; 'to act without any vacillation'[4]; to apply particular means 'according to the circumstances of the matter', etc.

Scientific philosophy is in essence concrete, critical and revolutionary. It is not a dogma but a constantly developing scientific doctrine. The use of the dialectico-materialist method, its application to a definite historical situation, is therefore a creative task in the direct sense of this term. Materialist dialectics is the universal method of modern science and of the social action of progressive forces. This is precisely why it should be applied creatively to specific social phenomena and processes in each particular country. For the general exists only in the particular and as a result of the existence of the particular. The functioning of general dialectical and sociological laws must therefore be specially brought to light in each particular process and phenomenon, and from this one must draw concrete political conclusions and accordingly work out the tactics of social action.

Historical and national conditions have taken different shapes in different countries. At the same time, uniformity and a growing trend towards progressive development are making themselves felt in the life of society. Bourgeois scientists long propounded a theory that the East would develop in a particular way, differing from that of the West. This theory has now been proved untenable. The Eastern countries, including India, China, Japan, and Iran have, on the whole, travelled the same path as the

---

[1] V. I. Lenin, 'The Immediate Tasks of the Soviet Government', *Collected Works*, Vol. 27, Moscow, 1965, p. 274.

[2] V. I. Lenin, 'Letter to N. D. Kiknadze', *Collected Works*, Vol. 35, Moscow, 1973, pp. 242-44.

[3] V. I. Lenin, 'The Trade Unions, the Present Situation and Trotsky's Mistakes', *Collected Works*, Vol. 32, Moscow, 1975, p. 27.

[4] V. I. Lenin, 'Conspectus of Hegel's Book *The Science of Logic*', *Collected Works*, Vol. 38, Moscow, 1977, p. 226.

countries of the West. They also went through a primitive-communal system which gave rise to a slave-owning order. As in the West, slave relations were replaced by the feudal-serf system. But feudalism lasted for a much longer time in the countries of the East. Though, during the last century, the feudal-serf order in the East has been increasingly eroded and is being replaced by the capitalist one, the remnants of feudalism are still having an effect, even today, in many cases. The history of the East, like that of the West, has been characterised by class struggle, ever since the classes first emerged. The peoples of all countries have been struggling against oppression, for freedom and national independence. Thus the laws in operation in Europe are also valid for the countries of the East.

The victory of the Great October Socialist Revolution and of socialism in the USSR, the collapse of the exploiter system in several European and Asian countries and then in the Western Hemisphere, in Cuba, as well as the emergence in recent years of a growing number of socialist-oriented countries, all this shows that the transition from capitalism to socialism is not a chance occurrence but a logical, law-governed stage in the progressive development of mankind. Social and scientific practices today fully bear out the objective truth of Marxist-Leninist teaching. This teaching expresses the interests of the working masses in struggle against exploitation and oppression.

Scientific philosophy is constantly enriched with new conclusions and generalisations based on a theoretical interpretation of scientific data and social processes today. It acts as powerful ideological weapon in the revolutionary transformation of the world, in the struggle of the working, class and of all progressive forces for peace, democracy, national liberation, socialism and communism.

Date Due
