

PRIMERS FOR THE
AGE OF PLENTY, NO. 4

Edited by LANCELOT HOGBEN

History of the Homeland

by HENRY HAMILTON

A new and exciting English history dealing with human needs and other questions that matter to people today. There are chapters on the Land, Food, Clothes, Health, Commerce, and Labour. It deals with the British Empire, the Rise of Capitalism, the Labour Movement, and the Rise of the Professions. It also recalls the story of Education and of Man's changing Moral Values.

*Oversubscribed, but copies available at
Booksellers.*

Illustrated. 600 pages. 18s. net

George Allen & Unwin Ltd

391

1

VOL. 3

The Modern Quarterly

EDITOR: DR. JOHN LEWIS

WINTER 1947-48

M. H. DOBB

JAMES KLUGMANN

MAURICE CORNFORTH

J. S. D. BACON

W. ILBERG

THE MODERN QUARTERLY
TWO SHILLINGS & SIXPENCE

LAWRENCE AND WISHART

Scanned / Transcribed by
The Socialist Truth In Cyprus
Web: <http://www.KibristaSosyalistGercek.net>
<http://www.kibristasosyalistgercek.net/intro.htm>
E-mail: info@KibristaSosyalistGercek.net



MADE IN ENGLAND

All enquiries about advertising space in this journal should be made to Messrs. Hart and Barton, Ltd., 139 Strand, London, W.C.2

Some Books on Russia and Eastern Europe

George Reavey

SOVIET LITERATURE TO-DAY

This well-known poet and critic reviews present-day Soviet literature as it has evolved from the traditions of the nineteenth century and in its relation to the life and economy of the country. The author has recently spent several years in Russia as Deputy Press Attaché.

"The importance of Mr. Reavey's book is that it is the only serious study of Soviet literature in our language."—*Tribune*.

8/6

Walter Kolarz

**MYTHS AND REALITIES IN
EASTERN EUROPE**

This book by the author of *Stalin and Eternal Russia*, deals with Europe's danger zone—the polygot area between Russia and Germany.

"In this most useful book which we neglect at our peril Mr. Kolarz has made a careful study of all the peoples in the troubled area between Petsamo and Salonica."

—*Birmingham Post*.

Demy 8vo. With Maps.

12/6

Henryk Frankel

**POLAND: THE STRUGGLE
FOR POWER**

This book is an analysis of social and economic rather than political and diplomatic forces and an objective study of the various problems that Poland presents.

"This is a well-documented and thoughtful work which suitably illuminates the two conflicting strains in Polish tradition, the democratic and the feudal reactionary."—*Daily Worker*.

Demy 8vo. With Maps.

12/6

V. A. Firsoff

THE UNITY OF EUROPE

An interesting discussion of the problems of race and nationalism in Europe and an outline of a scheme of Federalism for Northern Unity. A thought-provoking and important book.

12/6

LINDSAY DRUMMOND

S.C.R. The Society for Cultural Relations with the U.S.S.R.

President: Sir Charles Trevelyan.

Chairman: Mr. D. N. Pritt, K.C., M.P.

14 KENSINGTON SQUARE, LONDON, W.8

(WEStern 1571)

SCIENCE AND ENGINEERING SECTION

President: Sir Robert Watson-Watt, F.R.S.

Advisory Council:

Prof. J. D. Bernal, F.R.S.
Prof. P. M. S. Blackett, F.R.S.
Prof. S. Chapman, F.R.S.
Sir John Boyd Orr, F.R.S.
Dr. Julian Huxley, F.R.S.

The Section has a special Library of books and periodicals, covering various fields of science, including economics and philosophy.

The English section of this Library, in addition to published works, contains a Library of Translations of Soviet scientific papers.

Among the services to members are assistance in locating and obtaining Russian material, and in the preparation of popular scientific lectures and articles.

The Society has also other special groups:

ARCHITECTURE AND PLANNING GROUPS:

President: Sir Charles Reilly, O.B.E., LL.D., F.R.I.B.A.

CHESS SECTION:

President: Prof. L. S. Penrose

EDUCATION SECTION:

President: Prof. M. L. Jacks

FILM SECTION:

President: Sir Alexander Korda

LEGAL SECTION:

Chairman: Mr. Dudley Collard

THEATRE SECTION:

President: Dame Edith Evans

WRITERS' GROUP

President: Mr. J. B. Priestley

The Society begs to announce that it has now moved to larger and more convenient premises at

14 KENSINGTON SQUARE, LONDON, W.8

The move will enable members to receive a greatly improved service through its General and Special Libraries, but funds are urgently needed for equipment, purchase of books and periodicals, etc. A £25,000 appeal is now being made to all friends and wellwishers, and those who know the important work done by the Society are asked to contribute generously.

Full particulars of the Society and the appeal will be sent on application, and contributions will be gratefully received by the Hon. Treasurer, G. M. Vevers, F.R.C.S., S.C.R., 14 Kensington Square, W.8.

'48

'THE YEAR OF REVOLUTION'

A brilliant new work by

PAUL TABORI

and JAMES EASTWOOD

Written to commemorate the centenary of 1848, this book is both a graphic study of the great revolutions and movements of peoples in Europe and a discussion of the ideas and problems of 100 years ago that are still very much alive to-day. The volume is lavishly illustrated with reproductions of contemporary material and map.

Ready December

18s. 6d. net

ORDER NOW FROM

MERIDIAN BOOKS LTD · 8 GARRICK STREET · W.C.2

To All Who Use Words

THE GREATEST AID IN YEARS

A REMARKABLE list of words that many people use for making their correspondence, talks and any work with words more brilliant and sparkling, more inspiring, more penetrating. It will be sent to introduce quickly HARTRAMPF'S VOCABULARIES, which is acclaimed by discriminating people the world over as the greatest invention since the alphabet. Eminent business men and women say it almost thinks for them and shapes thoughts into brilliant forceful language.

Write for the list now. Become master of the written and spoken word, and unlimited scope is afforded you in every walk of life. Doubtless you have dreamt of such mastery—it is now within your grasp.

GILBERT FRANKAU SAYS: "HARTRAMPF'S VOCABULARIES seems to me infinitely useful. To the amateur writer it should prove absolutely invaluable, while to the professional, like myself, it is the best adjunct that I have so far discovered. Henceforward, it is not going to leave my desk."

● Send for your copy at once, it is as vital to your daily thinking, speaking and writing as breath is to life.

Send 1d. stamp

NOW

for amazing

WORD CHART

PSYCHOLOGY PUBLISHING CO. LTD.
(Dept. MQ/HV1), PSYCHOLOGY HOUSE, MARPLE, CHESHIRE

Coming Shortly

THE ROLLING OF THE THUNDER

William Gallacher M.P.

The Communist M.P. for West Fife takes up his tale from where he left off in his well-known autobiography *Revolt on the Clyde*. His life has been so closely linked with the Labour Movement that inevitably the story of his life is the story of the main events in working-class history of his time, and through the lively descriptions of his participation in those events he makes history live in the mind of the reader.

Illustrated.

15s.

IN DEFENCE OF MATERIALISM

The Development of the Monist view of History

G. V. Plekhanov

Of Plekhanov, Lenin wrote in 1914, "The best exposition of the philosophy of Marxism and of historical materialism is given by G. V. Plekhanov." These words are as true today as when they were first written. The lucidity of Plekhanov's thought and the brilliance of his exposition, as exemplified in this work, have never been surpassed, and it remains a work which no serious student of Marxist philosophy can afford to miss.

18s.

STUDIES IN ANCIENT GREEK SOCIETY

George Thomson

This volume was planned by Professor Thomson as the first of a series with the general aim of consolidating the ground covered in his *Æschylus and Athens* and is, in effect, an expansion of the three opening chapters with part of the fourth, reinforcing the argument and examining in greater detail some fundamental problems previously only touched on by him.

100 illustrations. 25 maps. 800 pp. demy 8vo. Approx. 2 gns.

SIX CENTURIES OF RUSSO- POLISH RELATIONS

W. P. and Z. Coates

The well-known authors of *A History of Anglo-Soviet Relations* have written, with their accustomed care and incontrovertable documentation, a history of the relations between Poland and Russia which provides a key to the understanding of a problem which has perplexed European statesmen for generations. At the same time they have given what amounts to a short history of the main features of Russia's historical development.

Maps. 232 pp. demy 8vo. 21s.

LAWRENCE & WISHART

LABOUR MONTHLY

Founded 1921 Editor: R. Palme Dutt

Circulation in 55 countries

NOVEMBER, 1947

30th Anniversary
of U.S.S.R.

NUMBER

Salute to the Soviet Union
from D. N. PRITT, K.C., M.P.
Notes of the Month: *Two Camps—One
World* by R. PALME DUTT
Democratic Planning in the Soviet Union
by WAL. HANNINGTON
Cripps and the Alternative by J. R.
CAMPBELL
Reshuffle to the Right by WILLIAM RUST
Sidney Webb by R. PALME DUTT
Document of the Month—
The Nine-Party Conference: Resolu-
tion and Declaration
*Review—*J. V. Stalin, *Sochineniya*. Vol. I.
1901-7: J. Winternitz
A Hundred Years Ago—*Letter to Marx
from Engels*

Subscription Rates	Post Free	
	Home	Abroad
One Year	12/-	13/-
Six Months	6/-	6/6
Single Copies	1/1 post free	

From Bookshops or Agents or direct
from the publishers:

134 Ballards Lane, London, N.3



DOBSON

From Caligari to Hitler

SIEGFRIED KRACAUER

Much has been written about the German cinema, in a continual attempt to analyse its exceptional qualities, and, if possible, to solve the disquieting problems bound up with its existence. Dr. Kracauer maintains that in general, the technique, the story content and the evolution of the films of a nation are fully understood only in relation to the actual psychological pattern of that nation. This book is of value to the student of the film, of psychology and propaganda. It is profound and scholarly yet eminently readable.

Illustrated by 64 stills.

25s. net.

Ready shortly.

Current book list on request from
12 Park Place, St. James, S.W.1

Dennis Dobson Limited

SCIENCE AND SOCIETY

30 EAST 20TH STREET, NEW YORK

Established 1936

VOLUME XI, NUMBER 4

Fall, 1947

QUARTERLY, 11s.

(Four Issues)

ENGLISH REPRESENTATIVES:

COLLETS LTD.

9 SOUTHAMPTON PLACE, W.C.1

Modern Quarterly

1946-1947

PREVIOUS ISSUES STILL AVAILABLE :

Vol. 1, No. 4. Christopher Hill: *Society and Andrew Marvell*. J. B. S. Haldane: *Auld Hornie, F.R.S.* Georges Teissier: *The Mechanism of Evolution*. John Lewis: *The Great Moral Muddle*. Hyman Frankel: *The Philosophy of A. N. Whitehead*. Randall Swingler: *Personality and Planned Society. A Discussion on the Origin of Life*.

Vol. 2, No. 1. G. Paloczi-Horvath: *Irrationalism in Contemporary Bourgeois Folklore*. P. B. Medawar: *Old Age and Natural Death*. L. J. Russell: *Absolutism and Ethics*. Archibald Robertson: *Marxism and Christianity. The Soviet Literary Controversy*.

Vol. 2, No. 2. A. A. Zhdanov: *The Responsibility of the Soviet Writer*. Jack Chen: *Soviet Artists Discuss a "Modern Quarterly" Article*. Maurice Cornforth: *A Materialist Evaluation of Logical Positivism*. M. Heinemann and N. J. Klugmann: *Britain's Economic Strategy*. A Cornu: *Marxism and Literary Decadence*. Charles Gibson: *The Ship and Society*.

Vol. 2, No. 3. R. Page Arnot: *Retrospect on H. G. Wells*. Arthur Waley: *Social Organisation in Ancient China*. Y. Frid: *A Philosophy of Unbelief and Indifference*. A. H. Hanson: *The "Diffusionist" Interpretation of History*. Pamela Hansford-Johnson: *The Literary Achievement of Marx*. Karl Marx: *From the "Introduction to a Critique of Hegel's Philosophy of Law"*. Rodney Hilton and Christopher Hill: *Review of "Studies in the Development of Capitalism," Chapters 1 and 2, 3 and 4*.

Miscellany No. 1. John Lewis: *What is Marxist Literary Criticism?* G. Paloczi-Horvath: *That Paralyzing Apparition, Beauty*. C. H. Hobday: *The Social Background of King Lear*. Kenneth Muir: *Timon of Athens and the Cash Nexus*. Jack Lindsay: *Ossian*. David Wilson: *Emily Brontë: First of the Moderns*. Randall Swingler: *The Sense of Guilt and the Influence of Dostoevsky*.

BOUND COPIES

BOUND copies of the four issues in Volume 2, together with Miscellany No. 1, are available. Price 17s. 6d. Postage 8d. Please order from Central Books Ltd., 2 Parton Street, London, W.C.1.

Readers' own copies can be bound at a cost of 5s. plus 8d. postage. Copies should be sent to Central Books Ltd.

1848-1948

THE MODERN QUARTERLY will celebrate the centenary of the *Manifesto of the Communist Party* by the issue of a Special enlarged number in March. This number will contain articles by many distinguished British Marxists in which they will analyse the effect of the impact of Marxism on many aspects of human thought and endeavour.

The contents of this special number will be as follows:

The Manifesto	Douglas Garman
1848-1948 Historical and Theoretical Development	R. Palme Dutt
Marxism and the Study of History	Christopher Hill
Marxism and Economics	M. H. Dobb
Dialectical Method	H. Levy
Marxism and Science	J. D. Bernal
Marxism and Biology	J. B. S. Haldane
Marxism and the Development of Philosophy	M. Cornforth
Marxism and Ethics	John Lewis
Marxism and Culture	Alick West
The Manifesto and our Times	J. Winternitz

Additional numbers of this issue will be available in order to ensure as wide a circulation as possible. 128 pp. 2s. 6d.

THE NEW DEVELOPMENTS SERIES

1. *The Artist's Dilemma* by James Boswell
2. *Ballet* by Fernau Hall. 3. *Music* by Thomas Russell
4. *The Book Front* by Arthur Calder-Marshall

a series devoted to New Developments in
the Arts and Education of Great Britain

each volume
2s 6d

A. C. JENKINS

DEAR OLGA

'The most important book on Russia to appear
for many a long year. This is the sort of book
that makes one note passage after passage and
every one cries out for quotation.' *Daily Worker*

7s 6d

J. T. MURPHY

NEW HORIZONS

'An extremely well-written book . . . indispens-
able as a commentary on the history of the English
Left between the two wars.' *Manchester Guardian*

15s

THE BODLEY HEAD

viii

THE MODERN QUARTERLY

NEW SERIES. Volume 3 Number 1 WINTER 1947-8

Contents

EDITORIAL	3
MARKISM AND THE SOCIAL SCIENCES. <i>Maurice Dobb</i>	5
THE RECENT SOVIET DISCUSSION ON PHILOSOPHY. <i>Maurice Cornforth</i>	22
ROMAIN ROLLAND: AN HONEST ECLECTIC. <i>Werner Ilberg</i>	30
THE NATURE OF LIFE: ITS CHEMICAL BASIS. <i>J. S. D. Bacon</i>	45
NOTES ON THE STATE AND CONSTITUTION OF THE NEW YUGOSLAVIA. <i>James Klugmann</i>	60
COMMUNICATIONS:	
MATERIALISM AND ITS ADVOCACY. <i>Alfred Sohn-Reithel</i>	74
ON COLONIAL INDUSTRIALISATION. <i>Richard H. Pear</i>	85
DISCUSSION:	
ON SOVIET GENETICS. <i>F. Le Gros Clark and Harold Thomas</i>	93

The Modern Quarterly is published by Lawrence and Wishart
Ltd., 81 Chancery Lane, W.C.2. Subscriptions (11s. per year, post
free) should be sent to Central Books, 2 Parton Street, London, W.C.1.

HUTCHINSON INTERNATIONAL AUTHORS

have pleasure in announcing new and forthcoming books

MULK RAJ ANAND Coolie
Mulk Raj Anand has attempted to interpret India realistically in terms of the basic social conflicts rather than in the romantic or mystical conceptions of so many of the writers who have tried to "see" India as she really is. 6s.

ALBERT COSSERY
The House of Certain Death
Here are stark realism and creative imagination of a very high order. Set in a tenement house in the slums of Cairo, it is remarkable for its vivid yet truthful and sympathetic writing. 8s. 6d.

ALBERT COSSERY
The Men God Forgot
An absorbing novel which has a universal appeal and has been compared for its force and creative power with the works of Gorki and Dostoevsky. 9s. 6d.

RENE FULOP-MILLER
The Saints That Moved the World
Hailed in America as "the most beautiful and helpful book published for many years." The author has reconstructed the lives of well-known Saints and presented them with great power and skill as symbols of renunciation, intellect, love, will and ecstasy. 15s.

JOSE LINS DO REGO
Pureza
A sensitive study of a young neurotic told with great skill and insight into human nature that promises well for this competent new author. 9s.

F. C. WEISKOPF
Twilight on the Danube
"... a fine and impressive book ... develops slowly and skilfully into a microcosm of Imperial Austria drifting to disaster."—Michael Sadleir in *The Sunday Times*.

LION FEUCHTWANGER
Proud Destiny
Lion Feuchtwanger has filled a vast canvas, painting with masterly touch the innumerable figures that crowd his glittering setting—The Court of Versailles in the Eighteenth Century. 15s.

ARNOLD ZWEIG
The Axe of Wandsbek
This new novel by a famous author can, without exaggeration, be described as the most powerful, dramatic and revealing that has yet been written on life in Hitler's Germany. 12s. 6d.

EMIL LUDWIG
Of Life and Love
In this courageous book the eminent biographer gives his innermost convictions and his intimate beliefs on personal happiness. 9s. 6d.

HEINRICH MANN
Man of Straw
A great novel set against the background of Germany under William II and marked by superb characterisation and expert historical knowledge. 12s. 6d.

FRANZ WERFEL
Between Heaven and Earth
A courageous and stimulating confession of faith by the author of the world-famous *The Song of Bernadette*. 10s. 6d.

ALFREDO SEGRE
Mahogany
An outstanding novel by a young author who has not only real creative power but an exceptional gift for true and shrewd characterisation. 9s. 6d.

HUTCHINSON
INTERNATIONAL AUTHORS, LTD.

47 PRINCES GATE, LONDON, S.W.7

Editorial

WITH this issue we commence the third year of the New Series of *The Modern Quarterly*. Of our eight numbers, Nos. 1, 2 and 3 in Volume I and No. 4 in Volume II are sold out. The circulation has risen beyond our expectations but it may still be possible for us to print more copies and thus reach a wider public.

We are convinced that there are very many people who would subscribe to *The Modern Quarterly* if they had the chance to see it; and we wish to enlist the support of our readers in extending our circulation. We are at present greatly handicapped by the reluctance of bookstalls and bookshops to display copies for sale, though there is no difficulty at all in ordering it from them.

This means that apart from sales from certain progressive bookshops we have to rely on direct subscriptions to Central Books. We should like to see a considerable increase in such direct subscriptions and in regular orders to booksellers as well as in bookshop sales. This can be secured if our existing readers will bring *The Modern Quarterly* to the notice of their friends and thus help us to counteract the rather special handicap under which we work.

In order to assist those who might be willing to help us in this way we are prepared to make available a number of free copies of those issues which are still in print, for the purpose of introducing the journal to new readers. The best method would be for readers to send copies to prospective readers with a personal letter, and we can supply copies for this purpose if application is made to the Manager, Lawrence and Wishart, 81 Chancery Lane, London, W.C.2.

If readers would prefer us to send the copies out, we can do so if a list of names and addresses is sent to us.

We particularly request everyone to make it plain that there are likely to be ample supplies of the current and succeeding issues, since we are definitely increasing our printing to cope with an expanding demand.

There is yet another way in which both the circulation and the influence of *The Modern Quarterly* can be extended. Discussion Groups have been started in Liverpool and Glasgow, and there is scope for many more. The secretary of the Liverpool Group is Mr. Norman Wilson, 1 Gerard Avenue, Wallasey, Cheshire, who would be pleased to let enquirers know full particulars of the monthly meetings, which are held at the Free Church Centre,

56 Lord Street, Liverpool, at 7 p.m. The December meeting is to be addressed by Prof. G. Barraclough on Wednesday, Dec. 10th. On Jan. 14th Prof. T. S. Simey is lecturing on "The Problem of the West Indies." In February Prof. F. W. Walbank will lecture on "The Decline of The Roman Empire."

Glasgow also has a Discussion Group in process of formation and those interested should get into touch with Mr. Stewart J. McCulloch, 106 Hemes Road, Glasgow, S.1.

We are particularly glad of this Scottish development because the circulation of *The Modern Quarterly* in Scotland is less than it might be. We should particularly like to hear of groups in Edinburgh, Aberdeen and St. Andrews.

A special group is being formed in London to study Popper, Mannheim, Hayek, etc. Will those interested please write to Miss Audrey Parkin, 35 Norland Square, W.11.

These groups can not only give to present readers the opportunity for discussions and lectures but they can bring in many, not yet readers, who would be glad to take part in such discussions. The articles in *The Modern Quarterly* lend themselves admirably to this purpose. The groups will, in this way, do much to increase the circulation of *The Modern Quarterly*. We shall be glad to publish the names of those willing to take the initial steps to convene such groups and also briefly to mention programmes and to report on meetings; but it must be remembered that we appear infrequently and our space is limited.

In the present issue considerable space is occupied by contributions to discussion. Several of the main articles lend themselves especially to further comment.

Dr. Bacon's article "The Nature of Life" faces the issue from the standpoint of the bio-chemist and deliberately eschews philosophical treatment. Nevertheless the subject obviously invites discussion on the wider issues raised and we invite contributions.

James Klugmann's article on the Constitution of Yugoslavia raises important issues concerning the nature of this new form of state, more particularly in relation to the transition to Socialism.

Finally the philosophical discussion in the Soviet Union invites comment from those who might feel that there is much to add in view of recent trends in philosophy here, in France and in the United States.

BY MAURICE DOBB

I SHOULD like to begin by saying something about the intellectual climate in which Marx's thought was reared; since a doctrine generally appears more clearly delineated when it is contrasted with other contemporary doctrines or with ideas in critique of which the doctrine was born.

In the early and middle nineteenth century England and France were particularly influenced by two currents of opinion. The one, deriving from eighteenth century rationalism, held that the function of reason was to seek out and to teach what was the true interest of all men. Between members of society there existed a real harmony of interest which needed the light of reason to disclose; and when the task of enlightenment had been achieved, men would cease to be slaves of illusion and the ideal order of society would naturally appear because it was seen to be essentially *rational*. Writers like Adam Smith and Bentham had further argued that, even when the individual pursued purely selfish aims, there was an essential harmony which established that the public good, though unwilling, was nevertheless served (c.f. Smith's famous comment that it was upon the self-interest, not the benevolence, of the butcher and the baker that we all relied for our daily sustenance). The corollary of this view was the maximum of freedom and the unleashing of the individual from restraint. The other (and later) doctrine, usually resulted in a less optimistic belief in the results of freedom. It held that the purpose of social science was to extract from a study of history certain generalisations about human nature, and that the task of the reformer was to remodel society in conformity with these fundamental human characteristics; thereby imposing on society a unity that it would otherwise lack. But like the earlier view, it laid stress on the human mind as the agency of social betterment: for example, Saint-Simon's search for a new intellectual unity, or, in the case of Comte, instead of political agencies of change, his substitution of "an influence which is sure and peaceful although it is gradual and indirect: the influence of more enlightened morality, supported by a purer state

¹ Consisting mainly of a paper contributed to a Symposium on Dialectical Materialism in Cambridge in the Easter Term, 1942.

of public opinion." J. S. Mill, interpreting the views of Comte, adds that "the state of the speculative faculties, the propositions assented to by the intellect, essentially determines the moral and political state of the community, as we have already seen that it determines the physical."

To views such as this Marxism stood sharply opposed. Against the first type it asserted that the posited harmony of individual interests did not exist. Consequently reason would not produce harmony but on the contrary reveal contradiction. Against the second type it declared that what Comte called "the essential laws of human nature" were purely abstract; that to search for universal principles on which to found an ideal society was to misunderstand history; and that changes in morality and in ideas in fact followed social change at least as often as they preceded it. For Marx "history consists precisely in the continuous transformation of human nature."

Meanwhile in Germany the influence of Hegel had established a quite different tradition. Here the emphasis was that each stage of human society must be understood in terms of its ideal essence or spiritual character, which was something that both inhered in and lay beyond the mass of detailed particulars or aspects of society, just as the essential character of a man could be said to be expressed in, while being something more than, his particular behaviour on a variety of occasions. Hegel said: "In the history of the World the Individuals we have to do with are Peoples, Totalities, that is, States." Hence the various aspects of human society could not be separately treated, but must be viewed as an inter-related whole, of which the elements like single notes in a symphony were meaningless unless regarded as parts of the whole. Successive epochs of history had been marked by the dominance of successive national cultures, the conflicts between which represented the progress of the human spirit through contrasted opposites to a higher rationality. According to Hegel: "Every step in the process has its determinate peculiar principle. In History this principle is idiosyncrasy of Spirit—peculiar National Genius. . . . Religion, polity, ethics, legislation, even science, art and mechanical skill, all bear its stamp." This climate of thought led to the glorification of the existing State as embodiment of the spiritual essence of the epoch—the State as "the Divine Idea as it exists on Earth," and "the very condition in which freedom is realised." It led to a championing of established system and order

against the revolutionary tendencies of contemporaneous democratic creeds.

Marx shared with this viewpoint its insistence on grasping the essential character of a system of society in the pattern of its relationships, moreover in the tension or conflict inherent in them, rather than in a simple summation of its discrete elements or an analysis of its various aspects in separate departments. He shared also the notion of historical development as consisting in the successive clash of opposing patterns of relationships; each epoch being marked by a new pattern which, in dissolving its predecessor, had absorbed and transmuted the elements of which it had been composed. Unlike Hegel, he drew from this concept a revolutionary implication for the present as well as a revolutionary interpretation of the past. A further notion which Marx accepted both from Hegel and from the English economists was that, in Hegel's words, "out of the actions of men comes something quite different from what they intend and directly know and will." Hence this view was opposed alike to the attempts to explain social events in terms of the motives of individuals and to the opinion of Herbert Spencer (shared by most Positivists) that "the original factor is the character of individuals and the derived factor is the character of society." But instead of seeing the economics and the social relations of an epoch as an expression of its ideal essence, the conception he held was the exact contrary (which is part of what he meant in calling his doctrine materialist). It was in terms of its *social relations* that the essential character of an age was to be sought: social relations that were grounded in the economic institutions of the time. It was this "mode of production" (as he termed it) that stamped its impress on the mind of the epoch—on moral and intellectual ideas, on legal and political forms. Historical development did not consist in the changing hegemony of successive "National Spirits": in the opening words of *The Communist Manifesto*, "the history of all human society, past and present, is the history of class struggles."

It should, perhaps, be made clear that when Marx spoke of the mode of production as the prime determinant, he was not offering a simple technological explanation of society, as some critics and commentators have assumed. According to his use of the term, it included, not only the "forces of production," but also the "relations of production." These latter referred to relations between men (relations which Marx adds "are necessary and independent

of their will"), which were simply an aspect of the relations in which men stood to the productive forces: for example, the relationship between masters and slaves in a slave economy or of capitalists and workers in contemporary society, depending on their respective characters as owners and owned or as propertied and propertyless. It was essentially the contradiction between the productive forces and their development, on the one hand, and the prevailing relations of production on the other, which, in the form of a sharpened antagonism between classes, caused the disintegration of a mode of production and its eventual supersession.

In making statements of this kind Marx was, of course, making generalisations about the nature of social development. Whether they are to be properly classified as a philosophy of history or simply as a *method* of interpretation (as Croce insists) I do not propose to discuss. It is essentially as a method of analysis, or a framework of thought, in the social sciences that I shall be dealing with them. But in saying this I do not wish to oppose a *canon* of interpretation to a *theory* of history and of society, as Croce does (presumably because of his anti-materialist approach); since it appears to me that statements of this kind about the general shape of society must necessarily constitute a method of interpretation *and* a social theory at one and the same time; and that they can provide a valid method only in so far as they afford a true theory. The essential reason is that Marxism (as stated in the famous *Theses on Feuerbach*) is a method, not only of interpreting the world, but of *changing* it; and to be an effectual method of *acting* upon the world, it must apprehend essential truth about the nature of that world, even if that truth cannot be final and absolute. Antonio Labriola spoke of Historical Materialism as "merely a method of research and of conception," and "analogous to Darwinism which also is a method." Lenin (writing in 1899) said: "we do not regard it as something final and inviolable . . . (but) as providing only general *guiding* principles."

These "guiding principles" have often been decried as metaphysical notions and the Marxist method as consisting in the *a priori* construction of interpretations in which the actual course of history is deduced without any empirical study of historical data. That this has no justification is demonstrated by the care which Marx took to soak himself in historical detail and by the richness of historical content in his various writings. It is demonstrated, moreover, in the actual practice of leading Marxists in

undertaking the most detailed study of actual situations and in strictly subordinating the policies appropriate to a particular time and place to such study: a quality of realism in the thought and practice of Marxism which is the leading impression that a reading (for example) of the writings of Lenin or of Stalin must leave upon one (*vide* the attention paid by Lenin to concrete study of *The Development of Capitalism in Russia* and the dominating influence which this had on Bolshevik policy throughout the revolutionary epoch). Marx himself, as a matter of fact, spoke caustically about "metaphysicians who, making abstractions, the more they detach themselves from things, imagine themselves to be getting all the nearer to the point of penetrating to the core." In one of his letters (to the Editor of *Otechestvennie Zapiski* in 1877) he wrote of some historical question: "By studying each of these forms of evolution separately and then comparing them one can easily find a clue; but one will never arrive there by the universal *passe-partout* of a general historico-philosophical theory, which explains everything because it explains nothing, the supreme virtue of which consists in being super-historical." In *The German Ideology* he spoke of "abstractions which arise from the observation of the historical development of men" as having "in themselves no value whatsoever" when "viewed apart from real history." "They can only serve to facilitate the arrangement of historical material, to indicate the sequence of its separate strata. But they by no means afford a recipe or scheme for neatly trimming the epochs of history."

Actually, these general statements about society differ little from the principles of which all scientific method is made. They depend for their verification on the success of the method of analysis that they support; the evidence in support of them accumulating in the degree to which social and historical analysis and contemporary political action, with the aid of this method, proceed. The question is sometimes asked: why bother about constructing such generalisations? Why not just dig out the facts? This objection need hardly detain us very long. The answer is, I think, the simple one that facts never speak for themselves and that even the process of digging for them presupposes some principle of selection. Preconceptions inevitably influence, not only our selection of facts, but the way we isolate them and frame them for the purpose of working upon them and putting questions to them. In other words, the mind is never (and can never be) a passive mirror to events, and there is always an *active* element in

knowledge as we acquire it. Moreover, we are active in the sense that we are part of the process we are observing, and hence influence it, however detached we may try to be. (To take an agnostic view about causal sequences is itself to take an attitude, at any rate when we are dealing with social action and social change.) Hypotheses, which we always have in some form, either implicit or explicit, may illuminate our way or blind us: and we had better choose the most illuminating one we can find. J. S. Mill, who was a thinker sufficiently steeped in the empirical tradition, has written as follows (in his *System of Logic*) of those general laws or principles of sciences which, like the social sciences, are still at an early stage of development. "These general truths will doubtless make their first appearance in the character of hypotheses; not proved or even admitting of proof in the first instance, but assumed as premises for the purpose of deducing from them the known laws of concrete phenomena." Then as they are used as "technical help to the human faculties," they become "tested by the canons of legitimate induction" (Vol. 1, 562-3).

Such statements can never, of course, enable one to deduce the new social situation that will succeed the existing one in anything approaching its totality; if only because the essence of revolutionary change is that something new in quality is born. But that is not to say that *nothing* can be deduced about the new situation: certain tendencies can be detected and certain features of the new foretold. A Marxist from his specific analysis of Capitalism can reasonably deduce certain tendencies in its development and from that can further deduce that the socialisation of the means of production is the only complete solution and that this in turn will have certain results. But he is thoroughly justified (or was at any rate prior to 1917) in refusing to attempt any detailed sketch of what such a socialist society would be like. When one is still in a capitalist world, the data on which to base answers to such questions simply do not exist.

At the same time it should, perhaps, be made clear that I have been referring here to causal statements about the nature of social change and the form of interaction of various social elements. Necessarily linked with these are certain other statements about the form of development through different social stages or systems, and the dependence of later stages on earlier. Obviously Marx thought that each stage of development contributed some element necessary for the succeeding one (e.g. a proletariat and machinery for Capitalism, and large-scale technique and organisation and a

technically advanced working class for Socialism). In this sense the order of development was *necessary* and not fortuitous. In Vol. 3 of *Capital* for example, he points out that in the antique world the growth of commerce produced slavery and only in the modern world was a lever to Capitalism; the actual outcome depending on the nature of the pre-existing mode of production—its "solidity and internal articulation." But Marx certainly did not intend anything teleological in this; and he was certainly not enunciating some logical pattern or curve of progress from which the future course of history could be deduced by a process of simple extrapolation, as many of his critics have supposed. One example to show that he did not intend any rigid unilinear theory of stages is the importance he assigned to the revival of serfdom in Eastern Europe in the 16th century—the "second serfdom" as Engels called it. Moreover, there is a passage in his *Ludwig Feuerbach* where Engels refers parenthetically to the fact that "in human history there is not only an up-shooting but also a down-growing branch." At the same time there was a clear sense in which he regarded development as generally "progressive" in character: namely, its tendency with the growth of the productive forces to enhance man's power over nature (measured by labour productivity). And the transition from Capitalism to Socialism he undoubtedly regarded as "progressive," both in the sense that it would unfetter the material productive forces and also in the sense that it would emancipate man and change him from an *object* of production to a *master* of the productive forces, conscious of the "laws of necessity" and hence a conscious pilot of his own destiny.

A method of this kind is not something that can be summed up in a few aphorisms without strong risk of sounding either commonplace or dogmatic. Nevertheless, one must do one's best to sum up in a few propositions what the Marxist method in the social sciences distinctively implies.

The first of these relates to the connection between ideas and economic conditions, to which we have already referred. Its practical relevance can be seen by contrasting two statements about social change which are perennially in debate. "You can only change society when you have brought about in men a change of heart." "You can only change human nature by changing the economic conditions in which men live." Few issues could be more fundamental to the framing of any political program; and it is a question on which it is clearly impossible for any active citizen not

to take a view. As we have seen, the causal sequence for Marx was essentially from the socio-economic structure of a given society to its ideology, and not the converse. "The mode of production in material life determines the general character of the social, political and spiritual processes of life." This is a statement, as it were, about the physiology of society. What often troubles people about it is a difficulty in reconciling it with the fact that men's minds are not passive mirrors to their environment, but themselves exert an influence—that, as Marx himself was eager to point out, "man makes his own history" and things like ideology and "class consciousness" are themselves factors in making revolutions which change the mode of production. Marx said that "by acting on the external world and changing it, man at the same time changes his own nature." (*Capital*, Vol. I. Ch. VII.) There are passages in two letters of Engels in the '90's which make it clear that he and Marx had no intention to deny the reciprocal influence of ideas on events. "Political, juridical, philosophical, religious, literary, artistic, etc. developments are based on economic development (says Engels). But all these react upon one another and also upon the economic base. It is not that the economic position is the cause and alone active, while everything else is only a passive effect. There is, rather, interaction on the basis of economic necessity, which *ultimately always asserts itself*." Again, in a letter to Mehring he speaks of a consideration which "Marx and I always failed to stress enough in our writings and in regard to which we are all equally guilty. We all laid, and were bound to lay, the main emphasis at first on the derivation of political, juridical and other ideological notions . . . from basic economic facts." But it is "a fatuous notion that, because we deny an independent historical development to the various ideological spheres which play a part in history, we also deny them any effect upon history. The basis of this is the common undialectical conception of cause and effect as rigidly opposite poles, the total disregarding of interaction; these gentlemen forget that once an historical element has been brought into the world by other elements, ultimately by economic facts, it also reacts in its turn and may react on its environment and even on its own causes."

Some have regarded this admission as tantamount to a retreat—as the dissolution of a causal-genetic statement into an admission of reciprocal interaction. One speaker¹ has implied that, once you

¹ In the above-mentioned Symposium. The speaker referred to was Professor Postan.

admit that events have other than economic factors as their immediate causes, the only alternative left is between a fruitless hen-and-egg chase after Aristotelian *final* causes and a purely empirical listing of the variety of influences that are *proximate* causes of any particular historical event. I have never been able to see that views of this kind have any justification. For Marx and Engels a causal statement was never more than a partial truth and an approximation, a statement in a particular context, derived by isolating certain factors and certain chains of influence from the complex, interacting whole of which they were part. As such they were essential for practice, in throwing into relief certain dominant influences. A situation about which one can say *no more* than that there is a reciprocal interaction or a variety of proximate causes is a situation about which one does not know very much. That the state of mind of a tuberculosis patient may react on his state of health does not invalidate the medical diagnosis of the disease; nor does the fact that moons and planets interact make nonsense of the statement that moons go round planets and not planets round moons. Marx's view of the relation between economic structure and ideology amounts, I suggest, to a statement about both the directness and the strength of the influence that the former exerts on the latter. By contrast, the influence which ideas have on society is subject to much straiter limitations. One aspect of this limitation was stressed by Herbert Spencer: "Ideas wholly foreign to this social state cannot be evolved, and if introduced from without cannot get accepted, or if accepted die out. Hence the advanced ideas when once established act upon society: yet the establishment of such ideas depends on the fitness of society for receiving them. Practically the popular character and social state determine what ideas shall be current." Even Dicey recognised that "public opinion is itself far less the result of reasoning or of argument than of the circumstances in which men are placed." Another aspect of this limitation is that men are seldom conscious of the real impulses which prompt them to action, and the ends their action serves are seldom the ends that they themselves envisage. When ideas are in a very special alignment with all other elements in the social situation—in particular, with the state of class relations—they may result in revolution; but only when they are in this particular relation to the general constellation. And precisely because at such times consciousness and ideas have such potency, Marxists have always stressed their rôle as against mechanistic theories of

"spontaneous development." A similar limitation is, I believe, true of the influence of great men, or of "small" and so-called "accidental" events. Engels once referred to a particular historical situation as being one of such unstable equilibrium as to constitute "one of the exceptional cases where it is possible for a handful of people to make a revolution." This situation he likened to "a charged mine which only needs a fuse to be laid to it," where "one small action in itself insignificant (can) release uncontrollable explosive forces"; to which, however, he added the comment that "people who boasted that they had *made* a revolution have always seen the next day that they had no idea what they were doing, and that the revolution *made* did not in the least resemble the one they would have liked to make." But while the *limitations* of the influence of ideas is stressed by contrast with previous doctrines, it is quite untrue that Marxism dethrones the influence of the subjective factor—of human thought and action—in favour of the rule of lifeless "objectivity." Rather does Marxism stress the great potentialities of human action if, but *only* if, it is exerted in a particular way and in a particular direction, determined by the nature of the objective situation.

The implication of this for the methods of the social sciences is evidently that the various departments of social study must have economics as their central sun; although not economics as fashionably viewed today as a study of market relationships—a sort of algebra of choices and opportunities—but in the wider sense in which Marx conceived it as an analysis of the structure and movement of class relationships. By this I mean that all social studies, whether of politics, law or ideology, must share certain of the concepts, such as those of class and exploitation, which are central to the economic sphere, and only at the expense of realism can be developed on the basis of principles derived exclusively or mainly from their own spheres. A particularly striking example of this is the theory of politics. Here it has been traditional for theories of the State to be constructed out of concepts in which man as a political animal is abstracted from man in his economic relations (e.g. as member of a particular class). Perhaps I may be allowed to quote Professor Ginsburg who has written somewhere of the functions of the State that these are "to promote the common good and to define and maintain a system of rights." I am not quite sure whether this is intended as a statement of an ideal or of a fact. But if the latter, it can be cited as an apt contrast to the

Marxian dictum that the State is essentially (in Engels' famous words) "an organisation of the exploiting class for the maintenance of its external conditions of production, that is, for the forcible retention of the exploited class in such conditions of oppression (such as slavery, serfdom, wage-labour) as are determined by the given methods of production." "The State," he goes on, "was the official representative of society as a whole, its embodiment in a visible corporation; but it was this only in so far as it was the State of that class which itself, in its epoch, represented society as a whole."

A second feature of the Marxian method is its insistence on the historical-relative character of social laws. From this it follows that social analysis should concentrate on special and peculiar features of a particular form of society, rather than attempt to abstract certain aspects common to *all* forms of society and on these assumptions to erect principles of universal application. Not that certain forms of wider generalisation, such as those we have mentioned above, have no place. Clearly, there is room for some sort of social morphology or general statements about social change. But these can only be the formal framework, and not the foundation for more concrete studies, the leading principles of which will be substantially different in one system of society from what they will be in another. A good example of this is economics. There has been an increasing tendency in modern times to regard the leading propositions of economic theory as holding true of all types of economic society, so long at least as they are exchange-societies—even to regard them virtually as what are called (in Kantian terminology) "*a priori* synthetic propositions." This attitude is not confined to the so-called Austrian School. One writer of a Cambridge textbook has spoken of laws which hold whether "merchant adventurers, companies and trusts, Guilds, Governments and Soviets may come and go," operating "under them, and, if need be, in spite of them all." One consequence of this has been the attempt of a number of writers to lay down, by analogy with present-day society, a set of rules as to how a socialist economy must regulate its affairs. By contrast, Marx treated the chief principles which his own economic analysis sought to establish as principles of a specifically *capitalist* economy. This is not to say that he denied altogether that analogies could be found between the workings of different types of system (still less that he regarded Political Economy as consisting *only* of a study of capitalist society): merely that such analogies were

likely to be less important than the contrasts and their significance could only be assessed after one had established the differentia. Nor did he say that it was impossible to make general statements that were true of any economic system: merely that these were generally bound to be so abstract and formal and empty of real content as to be deceptive if made the basis of deductions about the laws of motion of a given society. Engels spoke of Political Economy as an "historical science," which "must first investigate the special laws of each separate stage in the evolution of production and exchange, and only when it has completed this investigation will it be able to establish the few quite general laws which hold good for production and exchange considered as a whole." "But anyone who wishes to bring under the same law the political economy of Terra del Fuego and that of modern England can produce nothing but the most vulgar commonplaces."

Thirdly, we must refer to the Marxian view of the form in which social change occurs. Other theories of society have generally treated change as a continuous function of the increase of some particular factor, such as consciousness or rationality or population or productivity or the division of labour, or Herbert Spencer's organic size and differentiation. Marx, however, rejected this type of explanation in terms of continuous quantitative increase. The motive force of change, for Marx, was firstly to be looked for, not in some factor external to a given society, but internal to it; and secondly was to be sought primarily¹ in the antagonistic relations inside the mode of production—in other words, in class antagonism. According to Marx it was a case of "no antagonism, no progress." Generally this antagonism did not become mollified, but on the contrary became heightened, as a given mode of production developed; at least, this tended to be so beyond a certain stage in a system's career, in view of the tendency for the property-relations of that system to become eventually a fetter on the growth of the productive forces. Here social change had the shape, not of ordered progression along a continuous curve, but of periodic leaps, promoted by a revolutionary rupture of the old social relations, the dissolution of the old mode of production and the emergence of a new. By this Marx did not mean that by some magic the achievements of a whole epoch could be crammed into a single revolutionary decree. He did not claim that Feudalism could be made to pass into Capitalism or Capitalism into Socialism overnight. He meant

¹ i.e. in recorded history to-date, which was the history of class societies.

only that gradual and continuous modifications of a system could develop only within certain definite limits—limits imposed by the class-structure of that system itself. To transform that system into its opposite required the prior occurrence of a set of changes—a set which had to be treated as an organic whole. This organic set consisted of those social relations which composed the mode of production. A change in them at some stage required a revolutionary transformation in the balance of class power; these sharp *bouleversements* composing, as it were, steep and narrow (often precipitous) watersheds between more gently undulating valleys on either side of them.

Perhaps it will help to give shape to these general implications of the Marxian method if some particular examples are quoted where the fruit of this method when given practical application has contrasted strikingly with other doctrines. First, one may mention the very notion of Capitalism: a notion to which it is difficult to give much meaning unless one borrows Marx's categories, at least in some degree. According to Marx, Capitalism consists in a particular form of class relationships. Sombart, in an encyclopedia article on the term, has pointed out that the majority of economists, and even many economic historians, have denied to the notion of Capitalism any validity at all. This is not an accident or a simple prejudice: it is because the categories they use exclude any notion of class exploitation (and I refer to class-exploitation, not as a moral judgement, but as a factual description of a relationship). Hence, the only definition of Capitalism to be found among most contemporary economists is the purely technical one of a system that *uses* a so-called "roundabout," or mechanised, method of production (according to which, of course, either a slave society or a socialist one could be "capitalistic" in this sense). Moreover, Marx not only defined Capitalism in a static sense, but depicted it as a developing process in a novel way. In so far as the classical economists had sketched a theory of development, this had treated capital accumulation as a simple and continuous process of quantitative growth, which (given free trade and expanding markets) would lead to a progressive increase of wealth, and moreover (if population did not outstrip accumulation) to a rapid amelioration in the position of the working class. By contrast, Marx depicted the process of capital accumulation as a self-contradictory or self-defeating process: firstly, as a process which as it advanced generated recurrent economic crises which would

arrest it; secondly, as something which, because it operated within the framework of a particular property system, produced a concentration of capital ownership and of industrial control. In other words, Marx alone among economists held a picture of Capitalism as developing towards the sort of Monopoly-Capitalism that we now know, with its restriction of output and its chronic unemployment and under-capacity working. At the turn of the century this picture was to be given greater concreteness in the theory of Imperialism, notably by Lenin, which showed Capitalism as a system driven on by a relentless urge to expansion—but expansion in a very different sense from the halcyon expansion of trade that the classical economists had envisaged. Can there remain to-day much doubt as to which picture is the more realistic—which has been justified and which condemned by the actual course of events?

As two final examples I will take one from economics and one from politics. It can scarcely be disputed, I think, that the bias of traditional economic thought has been towards treating the economic situation, not only in terms of social harmony, but mechanically in terms of equilibrium as a stable system. When we look at the world with unclouded eyes, there can be little doubt that this picture is something imposed on reality by the particular forms of thought which economists have used, and not *vice versa*. Since the events of 1929–33, indeed, certain economists have turned their attention to the study of fluctuations and of divergencies from equilibrium (sometimes in the form of divergent, sometimes of convergent, series) as normal models of actuality. But this cannot be said as yet to have been integrated with the general structure of economic theory, and thought and teaching in most centres of academic economics remain scarcely modified by this newer emphasis. The preoccupation of Marx, by contrast, already a century ago, was to show the system as composed simultaneously of equilibrating and disequilibrating elements; any situation where the former predominated tending periodically to pass over into a situation where the latter predominated. Economic reality for Marx was essentially movement through oscillation and interaction, in which stability and instability represented simply contrasted extremes of *tempo*. It is hardly surprising that Marxian political economy should have been a theory *par excellence* of economic crises, whereas non-Marxian economics not only should have treated crises as something quite abnormal (due, e.g., to the presence of frictions or the impact of external influences), but should

only very belatedly, and as an after-thought, have produced any theory of crises at all.

As regards political strategy, an emphasis always present in Marx's thought, but more explicitly formulated by Lenin, was that a social group or a party is generally impotent if it confines itself either to general propaganda of ideas or to being a sect of theorists or experts that tries to pull off some plan of social regeneration by palace intrigue or backstairs influence. Lenin once said in answer to romantic revolutionaries: "We do not need hysterical outbursts: we need the regular march of the iron battalions of the proletariat." A political programme could only become an historical influence if it ran with the stream of some extant social movement, resting basically on the self-movement of a class. Moreover, it must not only run with this stream, but fuse with it, and in doing so influence it. This it could do only if long-term policy or ultimate programme was closely laced with a short-term policy or programme of immediate demands, propaganda yoked with day-to-day agitation; the latter changing with the changing situation and bringing the former into union with what was of practical interest and concern to the politically unconscious mass ("Teach the masses; learn from the masses" was always a favourite slogan of Lenin). Unless this mass is shaped and nourished within the womb of the old order by the petty struggles and strivings of to-day, what Lenin termed "the historical initiative of the masses" will never be maintained and the new society of to-morrow will never be born. The French syndicalist Sorel (*quondam* Marxist and later Bergsonian mystic) expressed part of this (but part only and in an exaggerated form) when he said that the social *movement* was everything and the ultimate goal only of significance as inspiration to that movement. Another aspect of it is expressed in a Soviet party text-book (in a section which was the work of Stalin) in a passage which explains that Marxism teaches us not to "base our orientation on the strata of society which are no longer developing, even though they may at present constitute the predominant force, but on those strata which are developing and have the future before them," even if at present these are weak and immature.

More concretely this political approach is seen in the Marxist attitude towards "reforms" and towards "allies of the working class" in the immediate movement. For Marx and his major disciples struggles for immediate reforms and movement towards the goal of social revolution have never been exclusive opposites.

The former have been treated as concrete elements and particular moments in the latter (neglect of the former resulting in barren doctrinaire sectarianism and isolation and neglect of the latter in rudderless opportunism). Of this, past history and recent events alike are rich in examples: for example, the championing by Communists of democratic demands (e.g. peasant land reform) and measures having a "State-capitalist character" (e.g. measures of planned regulation over private trade and industry) in many countries of Europe to-day and notably in China; and this not just as an agitational slogan for an hour but as the program of governments in which Communists themselves participate. Such examples, far from being novel "modernisms," echo the famous declaration in *The Communist Manifesto* that "Communists fight on behalf of the immediate aims and interests of the working class, but in the present movement they are also defending the future of that movement." And it is because they have this conception of politics as an actual historical movement that Marxists have laid such emphasis upon *class-alliances* between the proletariat and other social strata: between proletariat and peasantry in Russia in 1917, and between proletariat and peasantry and all progressive sections of the urban *petite-bourgeoisie* and "middle class" throughout Europe to-day. Here again the actual practice of Marxism is very far from the over-simplified black-and-white picture of social divisions, where all except the proletariat is "one homogeneous reactionary mass," that critics of Marxism so tirelessly and perversely foist upon it.

In conclusion, one can only add that for most people a social doctrine will claim or forfeit allegiance according to the degree to which it affords an illuminating interpretation of the present-day world. As an interpretation of the past it is widely admitted to-day that Marxism has proved a major stimulus to the writing of economic history. But as a method of interpreting the twentieth century scene—moreover, as a remarkably early forecast of its leading features—its claims also rank very high. Can anyone seriously deny the *substantial* validity of Marx's picture (never mind the detail of his drawing) of economic crises growing more and not less serious, of concentration of industrial control and ownership instead of their diffusion, of social tensions becoming more acute, instead of what Alfred Marshall called "the decline of exclusive class advantages in industry"? If there has been any period when the Capital-Labour problem has become dominant in

political as well as in economic life, it has been, surely, the past thirty years? Has it not become increasingly true that convincing interpretations of events, whether in internal or in international politics, are those which mainly run in terms of a *class* analysis of the forces at work? And may I recommend one final instance to your attention? A factor which Marxists have been criticised for underestimating, and one which they could reasonably have been expected to underestimate because of their special emphasis on class, is nationality and national differences. If the government of the U.S.S.R. was to be expected to trip up over any problem, it was surely this one in a land of between 100 and 200 diverse nationalities. Is it not a remarkable fact that even in this most unlikely sphere of all a Marxian method of approach should have proved, not a hindrance but apparently a help: that a solution of a complex nationality problem should have been, by common admission, one of the signal achievements of Soviet policy (as more recently it has been of Communist policy in post-war Yugoslavia), and that during the war the U.S.S.R. should have provided an example of a multi-national State with a unique degree of stability and cohesion? Such things may of course be dismissed as coincidences. But if so, they are coincidences that need a great deal of explaining.

The Recent Soviet Discussion on Philosophy

BY MAURICE CORNFORTH

IN June of this year an important discussion on philosophy and the tasks of philosophy was organised by the Central Committee of the Communist Party of the Soviet Union. Philosophical workers of Moscow, of the Union Republics and of the cities of the Russian Federation took part in the discussion, and 83 contributions in all were made. The main points were summed up by A. A. Zhdanov, secretary of the Central Committee of the Communist Party.

Zhdanov's speech, together with a number of the other contributions, appeared in the first number of a new Soviet journal, *Questions of Philosophy*, the regular publication of which was agreed upon as a result of the discussion. A report of the whole discussion was published in *Bolshevik*, No. 15, and Zhdanov's statement was also reproduced in the following number of *Bolshevik*.

The occasion of this whole discussion was the publication, last year, of a text-book on *The History of Western European Philosophy* by the well-known Soviet scholar Georgi Alexandrov. This book had attracted considerable notice and was awarded a Stalin prize. Nevertheless severe and sweeping criticisms of it had been made, and the recent philosophical conference was called to review the book and to give consideration to these criticisms. The conference by no means confined itself to the consideration of Alexandrov's book. The criticism of the book raised wider issues, and led to a searching discussion of the whole question of the scientific interpretation of the history of philosophy, of the place of Marxism and dialectical materialism in the history of philosophy, and of the immediate shortcomings and tasks of Soviet philosophers.

Thus the discussion took on a character of wide interest and importance and deserves the close attention of all students of philosophy, irrespective of whether they happen to be acquainted with the particular work of Alexandrov.

1. *The Tasks of a Scientific History of Philosophy.*

Summing up a number of the detailed criticisms which were made of Alexandrov's book, A. A. Zhdanov formulated the demands which should be satisfied by any history of philosophy which could claim to be scientific. These were, in brief, as follows:

The Recent Soviet Discussion on Philosophy

(1) "It is necessary that the subject matter of the history of philosophy as a science should be exactly defined."

(2) The historical treatment must be "based on the present-day achievements of dialectical and historical materialism."

(3) "An exposition of the history of philosophy should not be scholastic, but creatively valuable." That is to say: "It should be directly linked with the tasks of the present day. It should help towards a better understanding of these tasks, and it should outline the future prospects of philosophical development."

(4) "The factual material should be fully verified and authentic."

(5) "The style should be clear, precise and cogent."

It had to be confessed that Alexandrov's history had failed to make the grade with respect to any of these five points.

On the question of the definition of the subject matter of the history of philosophy, a definition which must give a general appraisal of the significance and content of the historical development of philosophy up to the present day, Zhdanov formulated the matter in the following terms:

The history of philosophy "is the history of the origin, rise and development of the scientific materialist world outlook and its laws. In so far as materialism grew and developed in struggle with idealist trends, the history of philosophy is also the history of the struggle of materialism with idealism."

The discussion emphasised that the history of philosophy cannot be represented as a "smooth evolutionary development," in which "the various philosophical schools appear, one following the other, or one alongside the other, but not in struggle with one another."

Alexandrov is criticised for having presented just such a "smooth" picture of the history of philosophy, and of having treated the various philosophical systems in isolation from their historical circumstances. But "a basic postulate of the scientific materialist method" is that "the development of ideas is dependent on the development of the material conditions of social life." The different philosophical systems cannot be expounded "divorced from the concrete historical circumstances and the class roots of this or that philosophy."

The close connection of the development of philosophy with the development of natural science is stressed. "It is impossible to write a history of philosophy in isolation from the achievements of the natural sciences without gravely impairing the scientific quality of the book." In particular, such a treatment can only

obscure understanding of "the necessary conditions for the rise and development of scientific materialism, which grew up on the firm basis of the achievements of natural science."

Lastly, it is necessary to "stress that one of the main aims of studying philosophy and its history is the further development of philosophy as a science, the deduction of new laws, the verification of its postulates in practice, the replacement of obsolete postulates by new ones." Marxist-Leninist philosophical science "must continually be developed and perfected, enriching itself with new postulates and rejecting what is obsolete."

2. *Marxism and its Place in the History of Philosophy.*

The discussion of the history of philosophy produced a most important estimate concerning the place of Marxism in that history.

A fundamental criticism is made of Alexandrov's treatment of Marxism. That treatment, it is pointed out, "creates the impression that Marxism arose simply as the successor to earlier progressive doctrines. Attention is concentrated, not on what is new and revolutionary in Marxism in relation to the philosophical systems that preceded it, but on what connects it with the development of pre-Marxist philosophy." This obscures the fact that "the discovery made by Marx and Engels meant a revolution in philosophy."

"The rise of Marxism was a real discovery, a revolution in philosophy. Of course, like every discovery, like every leap, every interruption in continuity, every transition to a new state, this discovery could not take place without a preliminary accumulation of quantitative changes—in this case, the results of the development of philosophy prior to the discovery of Marx and Engels." But "Marx and Engels created a new philosophy, qualitatively different from all preceding philosophical systems, even the most progressive."

Zhdanov, summarising the results of the discussion, connected this new and revolutionary character of Marxism as a philosophy with the bearing which the achievements of natural science inevitably had upon philosophy and upon the nature of the tasks which philosophy needed to face.

"In the history of philosophy," he said, "it is not only the views on various philosophical questions that change, but also the range of the questions themselves. The very subject matter of philosophy is in a state of constant change, and this is entirely in accord with the dialectical nature of human knowledge."

He went on to deal with the relationship of modern philosophy with science, and with what this meant for the philosophical "systems."

"The peculiar feature in the development of philosophy is that, as the scientific knowledge of nature and society develops, the positive sciences, one after another, branch off from it. Consequently, the sphere of philosophy has continually contracted owing to the development of the positive sciences. And this process, by the way, has not yet been completed. This freeing of natural science and the social sciences from the guardianship of philosophy is a progressive process, both for the natural and social sciences and for philosophy itself.

"The authors of the philosophical systems of the past," Zhdanov continues, "laid claim to a knowledge of absolute and final truth. They could not contribute to the development of the natural sciences, for they wrapped them up in their 'systems.' They strove to stand above science and they forced on living human knowledge conclusions that were dictated, not by real life, but by the needs of their particular systems. This philosophy was useless as an instrument of practical influence upon the world, as a means whereby the world could be known."

In this respect there was a fundamental difference in principle between Marxist philosophy and all philosophy before Marx.

"The discovery of Marx and Engels marked the end of the old philosophy, i.e. the end of the philosophy which claimed to give a universal explanation of the world."

In this way Marx and Engels "began an entirely new era in the history of philosophy, which for the first time became a science."

Closely connected with the above characterisation of Marxism as a revolution in philosophy is another characterisation.

Marxism came forward as the scientific world outlook of the proletariat. In this respect, again, Marxism was something absolutely different from the former philosophies, which were "the occupation of solitary individuals, the property of philosophical schools consisting of a few philosophers and their pupils, who were divorced from life, divorced from the people and alien to them."

"Marxism is not a philosophical school. On the contrary, it is the overcoming of the old philosophy, which was the possession of the chosen few, an intellectual aristocracy. It is the beginning of an entirely new era in the history of philosophy, when philosophy

has become a scientific weapon in the hands of the proletarian masses struggling for their emancipation from capitalism."

3. *The Partisan Character of Philosophy.*

Sharp stress was laid in the discussion on "the principle of partisanship in philosophy" as a "basic principle of Marxist materialism."

"We know," said Zhdanov, "the passion and irreconcilability with which Marxism-Leninism has always fought, and is continuing to fight, the sharpest struggle with all the enemies of materialism. In this war the Marxist-Leninists subject their opponents to annihilating criticism. A model example of Bolshevik struggle with the opponents of materialism is Lenin's book, *Materialism and Empirio-Criticism*, in which every word is a rifle shot, annihilating an opponent."

Alexandrov, on the other hand, "finds occasion to say a kind word about almost every old philosopher. . . . This means that, though possibly he is himself unaware of it, he is held captive by the bourgeois historians of philosophy, who regard each philosopher first as a professional ally and only secondly as an opponent."

But long ago Lenin had pointed out that "materialism includes, so to speak, partisanship, which enjoins the direct and open adoption of the standpoint of a definite social group in any judgment of events." (*Selected Works*, Vol. II, p. 616.)

In our times, said Zhdanov, bourgeois philosophy has "degenerated into the worst enemy of science, into a rabid supporter of obscurantism. It is fundamentally hostile to the people and to their struggle for a better future." The Soviet philosophers, therefore, must "lead the struggle against the depravity and vileness of bourgeois ideology, and deal it shattering blows."

In this connection, the discussion led to the self-critical conclusion that "our philosophical workers have not been facing up to the tasks in front of them." Soviet philosophers should have applied the conclusions reached in an earlier discussion on the shortcomings and tasks of Soviet writers (see *Modern Quarterly*, Vol. 2, Nos. 1 and 2), but they had failed to do so. Zhdanov had some caustic remarks to make on the subject.

"We often use the expression 'philosophical front.' But where exactly is this front? The expression at once conveys the idea of an organised detachment of militant philosophers, perfectly armed with Marxist theory, attacking every sector of enemy ideology

abroad, attacking the survivals of bourgeois ideology in the minds of the Soviet people at home, continually raising the level of our philosophical science, arousing the working people of our socialist society with a knowledge of the laws of our development and a confidence, based on science, in the final victory of our cause.

"But can it be said that our philosophical front resembles a real front? It is more like a quiet backwater or a camp somewhere far from the field of battle. For the most part there is no contact with the enemy, reconnaissance is not being carried out, weapons are rusting, warriors are fighting on their own. . . ."

The Institute of Philosophy of the Academy of Sciences of the U.S.S.R. was blamed for failing to carry out its organising tasks effectively. "The Institute is paying very little regard to problems of present-day importance. Its studies are turned towards the past."

The basis of this unsatisfactory state of affairs was to be found in the fact that philosophical workers still had insufficient understanding of the basic principles of Marxism-Leninism, and in the continued survival of traces of bourgeois ideological influence. "This shows itself," said Zhdanov, "in the fact that many of our philosophical workers still do not understand that Marxism-Leninism is a living, creative doctrine, continually developing, continually enriched by the experience of socialist construction and by the achievements of contemporary natural science."

4. *New Tasks of Soviet Philosophy—Theoretical Problems of the Development of Socialist Society.*

In the light of the whole discussion, major tasks of Soviet philosophy in the future were defined.

Soviet philosophy, Zhdanov insisted, has new, living problems to tackle, problems arising from the development of socialist society for which philosophy must find an answer. "The time has come more boldly to advance the theory of Soviet society, the theory of the Soviet state, the theory of contemporary natural science, ethics and aesthetics." On the other hand, "to tolerate stagnation in the development of theory means the drying up of our philosophy, robbing it of its most valuable quality, its capacity for development; it means the transformation of our philosophy into a dry, dead dogma."

The discussion emphasised that the contemporary world provides

“rich material for theoretical generalisation.” Zhdanov particularly referred to the tasks of philosophers in extending the dialectical theory of the development of socialist society.

In this connection he pointed out that “Bolshevik criticism and self-criticism is not only an important practical question, but also a theoretical question.” The process of criticism and self-criticism is a powerful force in the whole development of socialist society, and this deserves the close attention of Soviet philosophers.

“If the internal content of the process of development is, as dialectics teaches us, the struggle of opposites, the struggle between the old and the new, between that which is dying away and that which is being born, between that which is disappearing and that which is developing, our Soviet philosophy ought to show how this law of dialectics operates in the conditions of socialist society, what specific application it has to this society.

“We know that in a society divided into classes this law does not operate in the same way as in our Soviet society. Here lies a very broad field for scientific investigation, a field which has been neglected by our philosophers.

“And yet our Party long ago found, and enlisted in the service of socialism, a special method of disclosing and overcoming the contradictions of socialist society—and these contradictions exist, even though philosophers, through cowardice, prefer not to write about them. That special form of struggle between the old and the new, between that which is dying away and that which is being born, in our Soviet society, is called criticism and self-criticism.

“In our Soviet society, where antagonistic classes no longer exist, the struggle between the old and the new and, consequently, development from the lower to the higher, does not take the form of struggle between antagonistic classes and of cataclysms, as is the case in capitalist society. It takes the form of criticism and self-criticism, which is the real motive force of our development and a mighty instrument in the hands of the Party.

“This is undoubtedly a new form of motion, a new type of development, a new dialectical law.”

The new journal of Soviet philosophy, *Questions of Philosophy*, has taken as its motto some words of Stalin: “To master Marxist-Leninist theory means to know how to develop it and advance it.” The discussion which took place last June will undoubtedly act as a stimulus to creative work. It calls upon Marxist theoretical workers to join close battle with the representatives of reactionary

ideologies and to advance the theory of Marxism in relation to the living problems of the present day. It lays down no dogmatic principles and gives no complete and final answers. But it gives a lead and outlines a programme on the front of theory, the significance of which will be found to extend far beyond the boundaries of the Soviet Union.

Romain Rolland: An Honest Eclectic

BY WERNER ILBERG

I

ECCLECTICISM is usually the spiritual habitation of people who want to evade the issue of the day. Unable to take sides, they assume a pose of impartiality and pretend to a greater depth of understanding than those in the thick of the struggle, who are reproached for taking sides.

Intellectuals, owing to their position between the two opposing camps, crouching alone in no-man's-land, with the shells flying to and fro above their heads, are more liable than anybody else to consider their isolation as the vantage point for an arbiter. It is seldom, however, that they do not abandon their position, and in the long run turn their backs on progress and become the defenders of reaction.

In contrast to the majority of eclectics, Romain Rolland, while jealously preserving his independence, never succumbed to this temptation. He consistently sought to remain "above the battle." He trained himself to look at both sides of every question. In this attitude lay his force and his weakness. It was his force in as much as he sincerely tested every opinion and every creed without a bias. It was his weakness in that it led him to conceive the idea of an "élite," a notion which included contempt for the masses. In addition, he was unable to abandon the ideas which had served him in an earlier period, even when they were hopelessly inconsistent with the new truths he had discovered. He would try desperately to reconcile the irreconcilable.

II

Characteristically, it was Empedocles whom he followed, a materialist in his conception of world structure and an idealist in his conception of the forces moving it. According to Empedocles, there were two principles ruling the universe: love and hatred. An echo of this is found in the last sentences of Jean Christophe: "Harmony, the supreme wedding of love and hatred, the God with the two powerful wings. Hosanna to life, hosanna to death."

The eclecticism of Romain Rolland is most clearly expressed in his *Empedocles*, a treatise written in 1918: "Our epoch will not close

Romain Rolland: An Honest Eclectic

its ear to anything. It is neither hiding behind cloister walls nor in the enclosure of rationalism in order to be secure from the menacing enigma of the world which lurks everywhere and is challenging it. . . . Thought needs immense panoramas. Rather than at partial truth, thought aspires at vast suppositions, excluding nothing it holds but harmonising everything: science, art, creed, dream and reason, the forces of contemplation and those of action." And human thought is for him "like a Hindu goddess with 1,000 heads. All its variations, all its contradictions are the harmony of the same mighty accord."

His reluctance to make a choice was discernible from the very beginning of his literary career. Between 1895 and 1900 he wrote his *Tragedies of Faith*, of which *St. Louis* propounded faith in religion, *Aert* faith in the idea of nation, and *Triumph of Reason* extols reason, "which is also a faith."¹ But it is significant that the common denominator of the three plays is the idea of service, of sacrifice. They are aimed against the apathy, the cynicism, the scepticism and egotism which invaded France as a consequence of the Prussian invasion of 1870 and the defeat of the Commune. Anything would be better than this unbelieving despair or this desperate unbelief. Faith was a condition *sine qua non*, but as yet he was unable to make up his mind which idea it should be that would lighten the prevailing darkness. In an artist who suffered under the indifference of his people, but who was at the same time indifferent himself except to art and apathy, this attitude was quite understandable.

III

Another aspect of his "impartiality" was revealed when the Dreyfus Affair was staged. He took part in it with his play *The Wolves*, first produced in 1898 under the title *Morituri* and the revolutionary pseudonym of "St. Juste." Zola and Jaurès were present. In the fight between might and right, the army and the people, reaction and progress, Rolland stood for right, for the people, for progress. But he did so in a very peculiar manner: he reversed the role of the defendant, who, from being a Jew, a member of a despised minority, became in the play a member of quite a different minority, an aristocrat of 1793. Those who accused him were not officers of a reactionary army, but of the revolutionary people's army. The one man standing up for him was his personal

¹ Preface.

enemy, Teulier, a republican, a philosopher, a disinterested fighter for whatever he recognised as right, who did not allow his personal enmity to interfere with justice. This Teulier thus became the first of a long series of intellectuals who formed the "élite," "the chosen few," the independent thinkers who were to be the arbiters between opposing powers. He is the predecessor of "Clérambault," of "The One against All." At the same time, Rolland had by this reversal of the actual situation shown his belief in an abstract justice. Acts of injustice might occur in a revolutionary army as well as in a reactionary one. He did not want to rouse the people against reaction, but against injustice. Even here in his first fight he obviously wanted to remain "above the battle." It did not help him very much, for as soon as the request was made on the stage "that an investigation be held," the vociferations began, "*Vive Esterhazy! Vive Piquart!*" so that, as an art critic informs us: "I could not understand anything but scraps of the dialogue."¹

IV

The aftermath of the Dreyfus Affair was disappointing. The people had been out in the streets; now their leaders were in the ministries and their representatives in Parliament, but otherwise nothing had changed. The Republic was saved, but the masses were not better off. The disillusionment was general.

Rolland, however, followed his line of thought and intellectual action. It was the time when he discovered the people. He wrote the first of his *Tragedies of the Revolutions:— The Fourteenth of July*. He took as its motto a word by Lafayette: "For a nation to be free it is enough that she wills it." A play that shows the taking of the Bastille is a direct call to action. In the Preface he gives his aims: "I have endeavoured to make the heroism live again and to recapture the faith of a nation in the throes of a revolution . . . in order that we, a nation of greater maturity . . . may continue and finish the work interrupted in 1794. . . . The end of art is not dream, but life. Action should spring from the spectacle of action." It is a drama of collective activity. The people themselves are its heroes: "If you wish to represent a tempest, you must not describe each wave but a whole angry sea. . . . Individuals disappear in the great ocean of the people." He displays something like a mystical belief in the people in this grandiose drama. An anonymous workman, pondering over the sight of the Bastille, says:

¹ *Revue d'Art Dramatique*, 1898.

Can't do a thing with this bit in our mouth. We have got to take it out first.

BOURGEOIS: How?

WORKMAN: Don't know; but it's got to be done.

ALL (*seriously and incredulously*): Take the Bastille!

That is how the idea of this bold enterprise is born. Rolland, who was proud of the great revolutionary traditions of his nation, shows us how the individuals join in it, sometimes even in spite of themselves. Their revolutionary instinct is sound. A procession is forming. Hulin says to Hoche:

They are going to be massacred. There is no sense in it.

HOCHE: Where are you going?

HULIN: With them, of course.

HOCHE: Old comrade, your instinct is better than your head.

In the same manner Rolland was attracted to social action, though doubting in his innermost heart its expediency. What is more, he was at variance with himself.

On the one hand he knew that something had to be done to bring art and the masses into harmony. He called for "A People's Theatre." Already in 1890 he had written: "An art for the refined only appears to me to be a very seductive egoism. I hold that art, like Nature, should satisfy the necessities and longings of all classes and all men."¹ Now he wrote: "Let us not be afraid to confess: Our disinterested art is an art for old men. . . . Art cannot draw apart from the aspirations of the epoch." With the People's Theatre he wished "to infuse new blood into art and expand its narrow chest by giving it the health and the strength of the masses." But he is quite aware of the difficulties under the prevailing conditions: "You want an art of the people? Then you must first have a people, a people whose spirit is free enough to be able to use it. A people with leisure who are not crushed by misery, by their inexorable labour, a people who are not brutalised by all that superstition, all the fanaticism of right and left, who are their own masters, victors in that struggle that is waged to-day."

It is here that his second side is shown. Art for the people, the people for art, that was possible only if the people are free, freed from drudgery, from want and from superstition. Vaguely, but obviously enough, Rolland was hinting that no theory would be of

¹ Letter to Malvida von Meysenburg.

any value but, on the contrary, would be a new means of enslavement. Acquiring a theory—any theory—was a giving up of “freedom.” Whosoever should tie himself to a philosophy would become narrow in outlook.

v

His positive attitude towards and his striving for the people were a direct outcome of the turbulent days of the Affair. His rejection of theories, more especially of Socialism or even Marxism, must be attributed to the corruption of the original idea by the reformists. Every activity in the political field was spoiled by self-seeking politicians. For the next ten years the idea of art and of artists as an élite became the predominant feature of his work. He wrote his *Lives of Illustrious Men*, of Beethoven, of Michelangelo, of Tolstoi. His aim was to give back to men their “faith in life and in man.” The same purpose underlies his great novel, *Jean Christophe*, which was written and published from 1902 to 1912. Jean Christophe and his friend Olivier are two different sides of the élite. Both together approach something of a self-portraiture of their author. Both are drawn to social action, though they consider art to be their main work. What distinguishes them from their contemporaries is their never-flagging faith. Round about them they see the crudest materialism, self-seeking, commercial activity and cynicism. Their “heroic idealism” was a discerning but unyielding optimism. Like his creator, Jean Christophe mixes in his youth with politics and like him he withdraws into the realm of art, after he has lost his faith in political action. How dangerously near Rolland came at that time to succumbing to an attitude of art for art’s sake may be seen by the following quotation. It represents the quintessence of Jean Christophe’s creed in the decisive hour, after having lived through all the turbulent troubles and temptations which were also part of Rolland’s life:

“Even if he were a pure artist, yet he had mixed his art with foreign ingredients. He had attributed to it a social mission, and he had not observed that there were two men living in him: the creative artist who did not care about any moral purpose and the man of action, of reason who demanded that his art should be moral and social. Sometimes the one caused the other to be in a curious confusion. Now, when every creative thought forced itself on him like a superior reality, he was free from the servitude

of practical reason. Yet he lost nothing of his contempt for the weak and spoiled immorality of his time and considered an impure and unhealthy art to stand on the lowest rung, because it was a disease, a toadstool growing on a rotten stump. But if art as entertainment is prostituting itself, Jean Christophe opposed to it not the shortsighted utilitarianism of a moral art, the wingless Pegasus, who drags the plough. The ultimate art, the only one worthy of this name, stands above the rules of the day. It is a comet darting through eternity. It is sometimes possible that this force is useful in the order of practical things. But it is possible, too, that it appears to be useless and dangerous. Yet it is the power, the fire. It is the lightning, flashing from heaven. . . . It is like the sun from which it descended. It is neither moral nor immoral. It is. It lightens the night of infinite space. And so does art.”

Jean Christophe still had a message, but this message was that of Bergson’s vague life-force, of life in general. It was a confirmation of Goethe’s saying: “*Es sei wie es wolle, es war doch so schön.*” Jean Christophe felt his responsibility, only this responsibility was confined to the realm of art and difficult to control. No doubt that Romain Rolland would have liked nothing better than to follow his beloved Jean Christophe on this path. But as he was sincere, as there was a revolutionary tradition in his family—one of his forefathers had taken part in the storming of the Bastille and reported his experience in a diary, his ancestors had been Janzenistes, which meant “an opposition to the Jesuits who ruled at the court of France, a kind of bourgeois Fronde against the monarchy”¹—as he was serious about the part which the élite had to perform, the decisive hour of 1914 found him prepared to defend the threatened cultural unity of Europe.

vi

The outline of his heroic struggle is well known. From September, 1914, onwards he published successively in Switzerland, where the outbreak of the hostilities had surprised him, one article after another protesting against war. First he addressed himself to Gerhart Hauptmann, giving him the glorious opportunity to save the honour of his people in a common protest against the destruction of Louvain. But Hauptmann answered with one of those silly and

¹ Letter to Dr. Grothaus.

resigned phrases which embody the very essence of irresponsibility and inactivity: "War is war." Needless to say that Rolland's articles were banned in Germany. But when he exposed the war more and more clearly for what it was, a great betrayal of the peoples, he aroused the wrath of his own country as well. Now he was considered to be a traitor to France. The crudest attack against him was made by André Gide: "What shocks me is that he [R. R.] has nothing to lose by the war: His books appeared never better than when translated. I go even further. He could only gain if there were no longer a French language, a French art, a French taste, or any of those gifts which he denies and which are denied to him. The final disaster of France would give his *Jean Christophe* its greatest and ultimate importance."

But whilst Rolland was thus misrepresented by most of the papers and by the vilest of sycophants, some intellectuals gathered round him: Einstein, Stefan Zweig, Forell, Eugen Relgis, Bertrand Russell, Barbusse, Nicolai. He was in sympathy with every man and every movement opposing the war. His all-embracing eclecticism brought him now into contact with people of an entirely different world outlook from his own. In America a new periodical was founded, *The Masses*. Rolland wrote an article about it, just because the official Press remained absolutely silent about everything oppositional, even in Switzerland. He was no longer concerned with ideas only, but quoted figures: "During the years 1914-16 there occurred an increase of 500 per cent. in the dividends paid by twenty-four of the largest companies—steel, cast-iron, leather, sugar, railways, electricity, chemical products, etc." He was coming nearer to earth. What a contrast to the passage quoted from *Jean Christophe*, where he nearly defended pure art! But yet, in spite of the high estimation which he felt for the Editors of *The Masses* for their courage and their activities, he took good care to keep his own independence: "I do not pretend that this opposition is impartial. It, likewise, is influenced by passions, so that it fails to recognise the moral forces animating the other side. The combined wretchedness and greatness of these tragical days lies in the fact that both sides are drawn to the fight by lofty, though conflicting ideals. . . . We, at least, claim the right of doing justice to our adversaries, even to champions of the war which we loathe."

He establishes himself as the supreme judge, responsible to nobody but his own conscience. He is free from the vice of passion. Quoting the figures of those making profits out of the war, he yet

conceded to them "lofty ideals." That is by no means cant, but his honest belief. Here is one of the roots of his later conflict with the *Clarté* group of Barbusse.

During these years he also came into contact with the Russian *émigrés*. Gorki had written to him in 1917: "Man has to learn that he is the creator and master of the world, that his is the responsibility for all his misfortunes, that his, too, is the credit for all that is good in life." But already two months earlier, in January, 1917, Rolland had paid tribute to Gorki on the occasion of a lecture on Gorki's life and work by Lunacharski. Rolland presided and proposed: "To the fighting Holy Alliance of the governments we counterpose the brotherhood of the free spirits of the world." It was still the "brotherhood of the free spirits of the world," which sounded very much like the "Chosen Few." But on May 1st of the same year he hailed the Russian Revolution:

"Russian Brothers, who have just achieved your great revolution, we have not only to congratulate you, we have in addition to thank you. In your conquest of freedom you have not been working for yourself alone, but for us likewise, for your brothers of the old west. . . ."

He evokes the French Revolution, recognises its time-conditioned value, but realises that

"ideas which were once fertilising, ideas which were once the forces of renewed life, are no longer anything more than idols of the past, forces tending to drag us backwards, additional obstacles. For new times, new paths and new aspirations. . . . The nations take it in turns to lead humanity. . . ."

He exhorted them:

"Above all, remain united. Learn from our example. Remember how the French Convention, like Saturn, devoured its own children. Be more tolerant than we proved. . . ."

In itself nothing is wrong with this heartfelt address to the Russians. It is only with our knowledge of Rolland's life and difficulties that these passages assume a special significance. One could vary the quotation from Lafayette to show the abstractness of Rolland's attitude at this time: "For a nation to have peace it is enough that she wills it." Unfortunately, that is not so. Peace and toleration depend on our neighbour. The Russian revolutionaries

wished for nothing better than to remain united. The onus of disunity rests always with those who break away from the common cause. It is impossible to be tolerant while the battle is raging. Rolland hoped that the Russian revolution would bring to Europe "the gifts of peace and liberty." Again, it was not the fault of the Revolution that it was followed by civil war and the wars of intervention.

Rolland was as yet unable to recognise the forces which ruled the world. He was unable to penetrate the deceptive surface of words. He knew men, and yet he trusted everyone and credited them with the best of intentions. Thus, in December, 1916, he quoted the Kaiser, who had expressed in 1908 a desire for the "United States of Europe." He took the phrase at its face value. Side by side there lived in him trust and distrust. It was exactly the lack of a precise political and even philosophical theory that led him to apply his trust as well as his distrust to the wrong people and at the wrong occasions. The industrialists and their Kaisers of all countries were trusted if and when they used fine phrases. Just because he was instinctively against them, he did not allow himself to confront their utterances with their actions. On the other hand, he was fundamentally on the side of the revolution and the revolutionaries. Just for that reason, he criticised them and feared that their struggle, their victory, would ultimately be spoiled by a new lust for power. In this respect he was and remained for nearly ten years a profound pessimist, though he professed again and again an optimistic faith in a world being led "upwards along a winding road." He kept in touch with the revolution and at the same time apart from it. Nothing was so precious to him as his own independence. On the very same May 1st, 1917, when he greeted his Russian brothers, he published another article: "Tolstoi: the Free Spirit." Here he quoted Tolstoi as saying:

"As long as we allow ourselves to be guided by an external authority, be it that of Moses and Christ for one man, that of Mohammed for another, and that of the socialist Marx for another, we shall not cease to be at enmity one with another."

And Rolland adds: "I wish to make these words of power widely known." For

"the boldest, directly they have shaken off their chains, are only too ready to assume fresh bonds. Hardly have they been freed

from one social superstition, than we see them deliberately harnessed to the chariot of a new superstition. . . ."

And he allows himself this exaggeration, which is based on a wrong alternative:

"A half-truth which we have won for ourselves is worth more than a whole truth learned from others, learned by rote as a parrot learns."

There is still the possibility of learning the whole truth from others and not learning it like a parrot. For seventeen years, ever since he had written *A People's Theatre*, he had harboured this criticism of dogmatic orthodoxy. To be free meant for him to be free from a philosophical system.

VII

When the days of February were succeeded by those of October and followed by civil war and wars of intervention, his attitude became still more detached. Peace, the absence of war, was his *idée maîtresse*. In *Clérambault*, which originally was called *The One against All*, we read:

"He [Clérambault] understood it [the Revolution] and even thought it inevitable. But that did not mean that he loved it. . . . No tyranny seemed to him to have a right to be loved. . . . The young men, however, did not deny it their love and were astonished that Clérambault showed so little enthusiasm for the new idol from the north. . . . Right from the start they desired the suppression of every liberty which was opposed to their idea of liberty. . . ."

Clérambault, like Rolland, endeavoured always to understand both sides.

"From their point of view, they [the revolutionaries] were not wrong. But the field of the spirit is not so narrow. Its struggle takes place on a much wider field and is not to be confined to narrow limits."

Yet, on the same page, Rolland calls this thinking of Clérambault "all too general and vague." He set out to clarify his position.

First of all, he returned to "direct action." He issued his *Declaration of the Independence of the Mind*. He rallied round him the

intellectuals, and Barbusse called the movement "Rollandisme." Many of them denied to social action even the semblance of reality or any significance. These were the "Radicals." Rolland himself tried to find himself inside the revolution, where he could at the same time serve the cause and yet keep his independence. He acknowledged the necessity of the revolution, realising that without it the élite would lose the opportunity to exercise their judgment. Once again he seemed to be the only competent judge of what was right and what wrong. He wished to "defend moral values, more perhaps during a revolution than in ordinary times." He was opposed to the means used,

"for the end—so rarely reached and always incompletely—only modifies the external relations between men. The means, however, shape the minds of men according to the rhythm of justice or the rhythm of violence."

As the revolution had no alternative but to use violence, he was distressed and it seemed to him that the revolutionaries "applied the worst lessons of the war to the revolution, the object of which is to free us from them."

To propagate abstention from violence was at the time of the wars of intervention unquestionably a siding with reaction, yet Rolland vindicated his

"place in the house of the revolution. . . . What right have you to decree that whosoever does not think like you is outside the revolution? The revolution is not the property of a party. The revolution is a mansion for all those who wish for a better and happier humanity. . . . There are some of us who make the claim to remain inside the revolution and of remaining there as free men."¹

It was at this time that his eclecticism made him embrace yet another theory, that of Gandhi's civil disobedience. It was for him "never . . . anything like 'non-resistance,' but on the contrary, the supreme resistance, the total refusal to acquiesce in and co-operate with the criminal state," a blend of Gandhism and anarchism. Significantly enough, he devoted himself "to the paradoxical task of wedding fire and water, of reconciling the ideas of India with those of Moscow." When, years later, he realised that he had failed, he added: "I am not surprised." It seemed to him that the conception

¹ Letter to Barbusse, 1922, quoted in *I Will not Rest* (Selwyn and Blunt).

was sound but too lofty. Whatever he seized he tried to hold for good. He did not relinquish a single idea which he had acquired during his lifetime as long as he considered it useful to progress. What distinguished him was his sincerity and that he learned through his mistakes, even if slowly.

VIII

He was already past sixty when he finally became an admirer and whole-hearted defender of the Russian Revolution. Already in 1924, when Lenin had died, he had written:

"Never since their heroic ages have the European religions known this granite faith. Never, above all, has human action produced a dominator of men, a master more absolutely disinterested."

Ever since his *Tragedies of Faith* he had been seeking a new faith. The main theme of his *Jean Christophe* had been his fight against selfishness, pettiness and apathy. No wonder he paid tribute to the man who embodied a new faith, who, ruling over millions, had remained a servant. Yet, the message opened with the words: "The ideas of Russian Bolshevism and of Lenin were not mine."

Many a time had he protested against the persecution of social revolutionaries in the U.S.S.R. But when in 1927 the periodical *Libertaire* invited protests "against the persecution of anarchists and revolutionary socialists by the government of the U.S.S.R.," he wrote:

"I have no need to say that I denounce, once more, these abuses of power. I have condemned them all my life. . . .

"That said, I recall to all free men in Europe that the time is a grave one for liberty and that an urgent duty devolves on them: Russia is in danger. . . . A formidable coalition of imperialist powers is being formed against the U.S.S.R. and under the pressure of the British Empire.

"Whatever may have been the blunders, stupidities and often crimes of the Russian Revolution, it represents the greatest social effort, the most powerful and the most fertile in modern Europe."

This article brought forth a letter by Lunacharsky:

"Your reply . . . has shown us at first glance, how much your objective wisdom is superior to the hesitations of many

intellectuals who call themselves our friends. That is not to say that I am in agreement with all you have written in your letter. . . .”

He invited him to collaborate with a new review, *Revolution and Culture*, to be published in conjunction with *Pravda*. Lunacharsky assured him that whatever he wrote would be printed, even in the event of its general principles not being in accord with the ideas of the Editor. In that case, the editors reserved the right to notify the reader.

Rolland accepted:

“If you recognise that free discussion is indispensable to the development of healthy and durable institutions; that it alone ensures a political education of a sovereign people, you will rally to yourselves the independent élite of the world . . .”

The spell was broken. Henceforward, as he himself wrote in 1934, he became “an honest fellow-traveller,” and he was proud of it. On the occasion of the tenth anniversary of the October Revolution, he wrote to his

“Brothers and Sisters of Russia. . . . What binds us together is not a political or social doctrine. It is infinitely more. It is a common divinity: Work. You and we, we are its children. We serve it, we worship it. It is the blood of the earth, it is the breath of our nostrils. It is the spirit of life. Before it, in it, we are all equal, all brethren. And it is because the U.S.S.R. has established—the first one so to establish—its reign upon earth, that I say: Blessings on it. May it last for ever.”

Three months later, a letter by two exiled Russian writers was published: “The martyred Russian writers to Romain Rolland, a desperate appeal by Konstantin Balmont and Ivani Bunin.” Rolland replied:

“Whatever be the ideal of human nobility . . . you know well, you clear-sighted men, with your eyes washed of all illusions, it was not that ideal that brought allies to your side from Europe. Your allies are recruited from the worst reaction. . . . You are no more than tools in their hands. . . . As against them I see in Russia a people which tries at the cost of nameless sufferings to give birth to a new order. That new order is entirely bloodstained, entirely soiled, like the fruit that is torn from the womb of its mother. In spite of the disgust, in spite of the horror, in spite of

ferocious errors and crimes, I go to the infant, I pick up the newborn: he is the hope, the wretched hope of humanity’s future. . . .”

This new and felicitous contact with the forces of the people gave him new hope, new faith, and a new élan. He knew it. He was conscious that he had found a way out from the blind alley of his barren individualism. He shows an innocent joy in his newly acquired knowledge of dialectic materialism. He quotes Marx and Lenin and Stalin. They are his new discoveries, discoveries made at the age of nearly seventy. He does not discard a single one of his old ideas, but he enlarges his views: “One single God is not enough for me,” said his Cola Breugnon. And the companion of his youth, Charles Péguy, had written:

“The great philosophers, the poets, discover certain aspects. There are no contradictions between them. They are all right.”

IX

To the general rule, that eclecticism is the philosophy of cowardice and muddle-headedness, Romain Rolland is an astonishing exception. That great old lady, the friend of his formative years in Rome, Malvida von Meysenburg, compared him with Parsifal, the “*reine Tor*.” Like him, he made his way in the dark forests of European politics, often erring, but never abandoning his goal, the resurrection of suffering mankind. Thanks to his honesty, sincerity and courage, his French inheritance of clear-sightedness and of revolutionary traditions, his eclecticism did not lead him astray, but broadened his outlook. Whilst the common brand of eclectics are using their materialism in their laboratories only and turn idealist when they speak of public affairs, it may be said of Romain Rolland that his method was the reverse. As a poet, a musician, he remained an idealist to the end. His last book, *Charles Péguy*, is proof of that. But as soon as he occupied himself with politics, he became a representative of the best of his class and his nation and an ally of the materialists. When Lenin returned to Russia in spring, 1917, he extended an invitation to accompany him to Romain Rolland, the author of *Jean Christophe* and *Above the Battle*.

“At that stage in my mental revolution I did not wish to compromise myself in my capacity as an intellectual sentry ‘*au-dessus de toutes les mêlées*,’ by participation in what I mistakenly took to

be a conflict between political parties. I should not by any means think so to-day. . . . I had not yet plumbed the hearts . . . of that sorry species . . . which calls itself 'the intellectual élite.' I attributed to it a character, a civic courage and a boldness of thought which, save in the most exceptional cases, it does not possess. It talks a great deal about truth, and decks itself up with it. But truth in action is alien to its temperament, it takes truth into its service. It has even reached the astonishing result of making truth into a literary cosmetic, the rouge on the lips of its art. That is a way of disguising itself. The most æsthetic of its writers make use of truth, as does a girl, to catch the public on the pavements."¹

Once Rolland had seen through the time-serving intelligentsia, he had freed himself from the main obstacle in his own development. Now he was really free to serve truth not in the abstract, but in action.

His road was a hard and tortuous one. His eclecticism hampered him, but could not prevent him from recognising the main tasks of his days. His attitude is best summed up in a letter he wrote to Serge Radine in March, 1931:

"I attach no importance to the words idealism and materialism. . . . Judge men not according to their ideas . . . but by facts. The whole question is to know whether the constructive movement proceeding in the U.S.S.R. is leading to a more just human organisation, the only just and fruitful one. I think it is. . . . It is not, as you say, a matter of some 'distant felicity,' of a hypothetical paradise. It is a question of giving immediate effect to the principle: he who works may eat, he who, being well, does not work, has no right to feed. It is a question of . . . restoring to millions of human beings, by the mere fact of such equitable distribution, the right to leisure, and the possibility of individual development. The parasites which are eating into the tree of life must be torn away from it. . . . He, or they, who shall rid the tree of them—call them what you will: Idealists, materialists, Marxists, Christians or Gandhists. You do not bother about the dogmas of your gardener. He may be wrong (to err is human). But the Lenins and the Stalins seem to me to be old and experienced gardeners. They know the soil. They have worked all their lives. We can learn much from them. . . ."

¹ *Good-bye to the Past*, 1931.

The Nature of Life: Its Chemical Basis

BY J. S. D. BACON

"All of us who are engaged in applying chemistry and physics to the study of living phenomena are apt to be posed with questions as to our goal, although we have but just set out on our journey."

F. GOWLAND HOPKINS.

DR. JOSEPH NEEDHAM has written recently that with the death of Sir Frederick Gowland Hopkins "it is as if a historical epoch had come to an end." The growth of the science of biochemistry in its first half-century has surpassed anything that could have been imagined in 1900, even by those, like Hopkins, who saw so clearly the lines which this growth would follow. This period has seen the coming of age of biochemistry, which is now accepted as one of the major disciplines in natural science.

It was originally intended in this article to recapitulate the older and review the newer ideas of the nature of life, but it is impossible to write now without some consideration of Hopkins' epoch, and its significance for an understanding of the problem.

The quotation is from the closing words of an address to the Physiology Section of the British Association at Birmingham in 1913. Its apparently cautious note is entirely out of keeping with the boldness of the address which preceded it, in which some of the older prejudices against biochemistry ("with its new and not very attractive name") were effectively demolished, and in which some of the fundamental concepts of the science were clearly laid down. It does, however, express the irritation of the scientist at those who are looking for the "secrets of life." "It is very unlikely," writes Prenant, "that all these 'secrets' will be one day revealed by the discovery of a quasi-miraculous phenomenon," a remark which, if anything, errs on the side of understatement.¹

It was more in that sense than with any sense of hopelessness that Hopkins spoke, for he quoted immediately afterwards the words of Robert Louis Stevenson: "To travel hopefully is better than to arrive, and the true success is labour." Let us begin by tracing the road which has been travelled up to the present.

¹ M. Prenant, *Biology and Marxism*, London, 1938, p. 99.

As Loeb pointed out in 1906,¹ three obstacles to the scientific investigation of life had been removed before the middle of the nineteenth century.

The idea that the activity of living organisms did not conform to the ordinary ("inanimate") physical laws was exploded by Lavoisier and Laplace, who showed in 1780 that the living guinea-pig resembled a burning candle, in that the heat given out during the production of a measured amount of carbon dioxide was approximately the same in both cases. From these experiments there arose the fundamentally correct idea that the utilisation of food by animals resembles its combustion outside the body. This idea is not unreasonable when one remembers that almost all the *combustible* material on the Earth originated in living organisms (wood, coal, oil, etc.).

A second idea, that the substances found in living organisms were distinct from those outside them, that these "organic" substances could not be made by the chemist in the laboratory, was exploded by Wöhler, who in 1828 made urea, the main nitrogenous excretory product in man and other mammals, from an inorganic substance, ammonium cyanate.

In this way two spans were built to connect living with non-living systems, leaving one large span to be completed; an explanation was required of the way in which living tissues carried out chemical transformations much more complex than any then (and now) possible to the organic chemist, yet without the equipment apparently essential for the chemist; heat, strong acids, and so on. The easy way out of this difficulty, and one which fitted well with religious and other idealist philosophies, was found by the *vitalists*, who postulated some force absent from inanimate matter and not open to investigation by the methods of science; in other words, they proposed that the spans already completed should be scrapped and the whole project abandoned.

However, before long the gap was bridged in principle by Berzelius who drew attention in 1836 to the phenomenon of *catalysis*, the fact that very slow chemical changes could be speeded up immeasurably by traces of substances (called catalysts) added to the reaction mixture. He suggested that living tissues themselves contained catalysts, and that these were responsible for the multiplicity of chemical changes which they are able to achieve under restricted conditions of temperature and acidity. "In animals

¹ J. Loeb, *The Dynamics of Living Matter*, New York, 1906.

and plants," wrote Berzelius, "there occur thousands of catalytic processes between the tissues and the liquids."¹ One would have thought that these suggestions would have daunted the supporters of the theory of "vital force," who nevertheless flourished for nearly a century afterwards.

So by 1836 the ground was prepared for a scientific attack on the nature of living processes. "To-day," wrote Loeb in 1906, "everyone who is familiar with the field of chemical biology acknowledges the fact that the chemistry of living matter is not specifically different from the chemistry of the laboratory."

At this time the development of the theory of evolution, both of inanimate nature (Lyell) and of living things (Darwin), introduced the idea, that at some stage in the history of the planet living organisms had evolved from non-living. As long as spontaneous generation was still accepted by a section of biologists there was nothing extraordinary in such a transition, but after the classical experiments of Pasteur in 1860 it was no longer possible to find in contemporary phenomena a parallel to this important evolutionary link, and the materialist interpretation of life encountered an obstacle which will not be surmounted by experiment for many years to come, in spite of the plausible hypotheses which have been put forward.²

During the latter half of the nineteenth century there was a great flowering of organic chemistry, which turned out to be very different from the growth its origin would suggest. Instead of keeping close to biology it became an independent discipline through which much was learnt of the ways in which the structure of organic compounds could be determined, and their synthesis achieved. It cannot be said that the synthetic processes devised and investigated by organic chemists have shed much light on the synthetic processes in living organisms, but they have been invaluable in helping the biochemist to elucidate the structure of substances occurring in biological material. It is more through the growth of physiology that biochemistry came once again to the light of day, than by a slow return of organic chemistry towards biological problems.

From biology emerged the idea that all living organisms were essentially of the same mould, that there was an underlying unity,

¹ Quoted by Loeb (*loc. cit.*), p. 8.

² Cf. J. B. S. Haldane, *The Inequality of Man*, 1932; A. I. Oparin, *Origin of Life*, 1938; A. F. Parker-Rhodes, *The Modern Quarterly*, Spring, 1946.

whether expressed morphologically in the concept of the cell, or more functionally in the concept of *protoplasm*. J. B. S. Haldane has enlarged upon this theme in an article for the old series of *The Modern Quarterly*.¹ "Protoplasm" was regarded in a mechanical way as the working part of the cell, as opposed to the structural and storage elements, the transporting fluids, and so on. We now incline to the view that many of the "structural" elements in the cell are in fact "functional," in that they participate in the chemical changes which go on "round" them.

Whether contemporary living organisms are all descended from a single primitive organism (the "primeval slime" of popular science) or whether they had their origin in several types, there can be no doubt that the essential unity of the living world postulated by biologists is borne out by the experience of biochemistry, and that any original separation has been obliterated in the course of evolution. This does not justify our ignoring the many significant differences between the larger groups of organisms, as for instance insects and mammals, but it does mean that a study of one type of organism may well have general application. The nature of life thus appears as a single problem, rather than as a series of separate problems, such as the nature of plant life, of bacterial life, and so on. As an example of this we might take the substances called *cytochromes*, which seem to occur in all organisms capable of living in the presence of oxygen, whether plant or animal, yeast or bacterium.

Those who deny that life can be fully investigated by the methods of science cannot deny that the living world depends utterly upon the non-living, and in fact constantly exchanges matter with it. None of the elements which make up living tissues are absent from inanimate nature. Vast quantities of carbon, oxygen, hydrogen and nitrogen are exchanged between the two "worlds" by processes of a cyclic nature. The source of energy for the whole system is solar radiation, by the aid of which plants build the substances which provide the only fuel and structural materials for them and almost all other living organisms.

In living tissues generally we find two classes of elements, very broadly speaking; those which enter into chemical combination (the energy needed for these syntheses coming in the first place from the sun), and those which chiefly provide a medium in which the others undergo combination and recombination. In the first

¹ J. B. S. Haldane, "Protoplasm," *The Modern Quarterly*, April, 1939.

group one would include carbon (pre-eminent as the element which forms the "skeleton" of all organic compounds), hydrogen, oxygen, nitrogen, sulphur and phosphorus; in the second one would place such elements as sodium, potassium, calcium, magnesium and chlorine. In addition to these there are elements like iron, zinc, cobalt, copper in animals, and boron in plants, which occupy an intermediate position. (One should perhaps mention that there is another group of elements which are injurious to living tissues; these include lead, and non-metals such as arsenic.) A particular atom of any of these elements can be a constituent of a living system one minute, and part of inanimate nature the next. The processes which bring this about are essentially chemical, and there is no evidence that any element behaves in an abnormal way in the tissues, as by adopting a new valency, or in some such way "violating the laws" of physics and chemistry.

However, there are some features of the chemistry of living tissues that *do* distinguish them, in a general way, from other naturally occurring materials. Carbon, for example, which outside living tissues shows little initiative, within them becomes the basis of highly complex molecules of large dimensions (molecularly speaking). Molecules of this kind are found in all living systems, and particularly those molecules containing nitrogen, the proteins (or "albuminous substances"). Such substances are extremely difficult to manipulate in the laboratory, because until the development of biochemistry they were largely neglected by the chemists, and few techniques for dealing with them had been invented. At first the difficulty impressed itself upon the chemists so deeply that they despaired of ever understanding them, the more pessimistic rejecting such studies out of hand. In spite of this, steady progress was made towards a solution of the technical problems, and to-day the study of large molecules is much less discouraging than it was thirty years ago.

In all cases these large molecules are not constructed "in one piece," like a reinforced concrete "pill-box," which can be taken to pieces only by the use of pneumatic drills or explosives, but by the assembling of smaller molecules, as in prefabricated housing construction. This method of constructing large molecules allows considerable variety in the finished product, without an equally great variety in the smaller units. Thus the substances cellulose and starch are both made up entirely of one type of unit, the simple sugar *glucose*, the difference in their properties being

accounted for by the different ways in which the glucose units are joined together. The proteins, which are of special importance, are made by the linking of *amino-acids*, of which about twenty-five are found commonly in nature. The way in which the units are joined probably does not vary from protein to protein, but the relative proportions of the different units, and the order in which they are linked, do.

Thus, although the large molecules found in living tissues are highly complex from one point of view (they contain upwards of 500 carbon atoms each), they are constructed from units the chemical structure of which is comparatively easy to study, and which can in fact be synthesized in the laboratory. Some attempts have been made to put these units together in the laboratory, but technical difficulties have so far prevented the synthesis of really large molecules by this means. On the other hand the organic chemists have been able to string together simple molecules which are not found in nature, and have produced a wide range of substances, including plastics like nylon.

There seems no doubt at all that living organisms make their large molecules by assembling the simple sugars, amino-acids, and so on. Conversely, in the preparation of foodstuffs for their utilisation by the tissues, animals and some micro-organisms, carry out the process of *digestion*, which is chiefly the breaking down of large molecules to simpler units. Associated with the large molecules in living tissues we therefore find simple substances which are related to them, but, as we shall see, these are by no means the only small molecules present.

The maintenance of life depends upon the expenditure of energy, and in those organisms not capable of utilising solar radiation it is obtained by the breakdown or oxidation of organic substances. The most important of these is probably the sugar glucose, although other substances, especially fats, may replace it to a large extent in some organisms.

In recent years we have begun to understand something of the stages by which glucose is used for energy production. We do not find a little pile of glucose burning in one corner of a living cell, producing steam to drive a steam engine or turbine, the method which would first occur to man if he were confronted with the task of utilising glucose for power production. Such a method is excluded from the very fact that living processes are essentially ones taking place in the presence of large amounts of water; the living cell

achieves the conversion of glucose to carbon dioxide and water (which is what a fire would do) entirely within an aqueous medium. The glucose is first combined with phosphoric acid and then broken down in a controlled manner, step by step. The energy liberated by the successive chemical changes is stored up in compounds of phosphoric acid. We know already about twenty of the main chemical changes which take place; many of these are reversible, but the process as a whole is not. The reconversion of carbon dioxide to glucose can be achieved only¹ by green plants, and by certain micro-organisms which can obtain energy from the inter-conversion of inorganic substances. Unfortunately, our knowledge of these processes is, by comparison, almost non-existent.

In analysing living tissues we shall therefore encounter many of the intermediate substances in this complex process, although most of them will be present in very small amounts. The same is true of the substances involved in all *metabolism*, as the sum total of all chemical changes in living tissues is called. Of course, our understanding of the metabolism of glucose has not come from a detailed analysis of this kind, but from the study of the actual *changes* which can be observed chemically in whole organisms, or part of them. No amount of careful analysis can replace the investigation of processes *in motion*.

When analyses revealed the presence in living organisms of intractable substances like proteins, those who had denied the possibility of constructing organic substances in the laboratory were re-incarnated as those who denied the possibility of ever understanding the nature of proteins. Closely associated with their view was the idea that life resided in large molecules of great complexity, and that metabolism consisted of the attachment of substances like glucose to these molecules, which thereby became unstable, and eventually lost carbon dioxide and water, or whatever the products of metabolism might be. To this obscurantist view Hopkins opposed in his 1913 address the view that is generally accepted to-day, that each step in the metabolism of a substance is the responsibility of a separate colloidal catalytic substance, an *enzyme*, and that protoplasm, far from being a homogeneous collection of "living molecules," is as heterogeneous a collection of enzymes as the variety of its metabolic processes demands.

It is necessary here to digress a little to examine the nature of enzymes (often called "ferments" by earlier writers). The existence

¹ This is not quite true.

of substances in the digestive juices which broke down the food to a "liquid" state has long been known, and was studied scientifically in the eighteenth century. We now know that in the passage of food through the various parts of the alimentary canal of animals the constituent foodstuffs (with the exception of fats), are broken down to soluble substances, and that these pass through the walls of the intestine into the blood stream. The substances which achieve this digestion are enzymes. They are all colloidal substances; they are characteristically destroyed by temperatures within 10° or 20° C. of boiling point (hence the reason for not having the milk too hot when making junket with rennet, the enzyme from calf's stomach). They are also specific, in that an enzyme breaking down proteins will not attack carbohydrates, and *vice versa*. In recent years progress has been made in their purification. They are all found to be proteins; all their physical and chemical properties are in accord with this. Careful study of the enzymes at work in aqueous solution on the substance it breaks down shows that the chemical change taking place, the addition of the elements of water to the point of linkage between units of the large molecules, does not transgress the laws of physics or chemistry, that it is, in fact, an example of a catalytic action. (Catalysis is by no means restricted to living matter, although it is certainly characteristic of it.)

The digestive enzymes work outside the cells which produce them, but this seemed no reason for supposing that enzymes could not work also inside cells. Starting from the discovery of the Buchners in 1903, that a juice squeezed from yeast cells could ferment glucose to alcohol, the investigation of these intracellular enzymes has already entered and made progress in the field of animal biochemistry, and is beginning in the more difficult field of plant biochemistry. The enzymes within the cells are if anything more specific than the digestive enzymes, very often effecting a chemical change in a single substance. Apart from enzymes resembling the digestive enzymes in their action, there have been discovered whole new classes of enzymes, such as those which effect the oxidation of organic substances by withdrawing hydrogen from them, and those which add phosphate groupings to sugars and simpler substances. Each step in the breakdown of the glucose molecule briefly referred to above is the responsibility of a separate enzyme; if one is omitted or destroyed the whole process may stop or be diverted into abnormal paths.

Further investigation has shown that many of these enzymes are not simply protein in composition, but consist of a protein with another substance attached to it. This extra grouping may be a compound of a metal, as in a group of iron-containing enzymes important in oxidative processes. Many of the enzymes will not function unless non-colloidal substances are present, the co-enzymes, which are thus another addition to our list of the simpler substances in living tissues. These substances include several of the vitamins, a fact which helps us to understand the great importance of supplies of them to organisms like man which cannot make them for themselves.

There is not space to dwell further on the enzymes, which may be said truly to be the keys to our understanding of the nature of chemical change in living matter. Their purification and isolation has been a striking vindication of the predictions, made long before the Buchners, that catalysis plays a dominant role in life. It is worth remembering too that as recently as 1912 Loeb could write: "The gap in our knowledge which we feel most keenly is the fact that the chemical character of the catalyzers (the enzymes or ferments) is still unknown."¹

Even when confronted with these developments some biochemists were inclined to a defeatist view. They admitted that the conception of intracellular enzymes working in series provided a plausible explanation of the breakdown and oxidation of foodstuffs in the tissues, but suggested that the *synthetic* side of metabolic processes required some other explanation. The energy required for the synthesis of, for example, polysaccharides from simple sugars, or of proteins from amino-acids, must in the animal come from the breakdown and oxidation of foodstuffs; the question was, how is this energy transferred? In theory all catalysis is reversible, and claims had been made that protein-digesting enzymes could be made to synthesize a protein-like material ("plastein") from the products of breakdown of naturally-occurring proteins. These experiments were not particularly convincing; that is, if one expected them to give a clue to the relatively massive protein synthesis of rapidly growing organisms.

For a time therefore the question of synthetic mechanisms in living tissues proved an obstacle to the general application of the enzymic hypothesis. Some research workers took refuge in the view that the spatial approximation of the two types of reaction,

¹ J. Loeb, *The Mechanistic Conception of Life*, p. 5.

energy-yielding and synthetic, could in some way serve to link them. The failure to achieve synthesis in isolated tissues in the test-tube might then be due to a failure to provide the right energy-producing reaction, or to mechanical damage to the cells causing a separation of the two systems.

In the last eight or nine years the synthesis of starch and of cane sugar has been demonstrated *in vitro*, and for these syntheses at least the idea of one reaction "influencing" another has proved unnecessary. A straightforward enzymic process has been shown to be involved in both syntheses. As was mentioned above, starch consists essentially of glucose units. In the synthesis of starch by plant extracts (or of glycogen by animal tissue extracts) the enzyme responsible acts upon a compound of glucose with phosphoric acid (a glucose-phosphate). To link one glucose unit to another, and thus build the long chains which make up the starch molecules, energy is needed. This comes from the glucose-to-phosphate link, which is swapped for a glucose-to-glucose link, phosphoric acid being set free as starch is formed.

The problem of the conversion of glucose to starch was thus solved, if it could be shown how glucose was converted to this particular glucose-phosphate. As it happened this particular link in the chain had already been forged.¹

We can thus describe all the chemical changes by which the breakdown of glucose is linked to the synthesis of starch. (Similarly cane sugar has been shown to be formed enzymically from the same glucose-phosphate and another sugar, fructose.) In this connection most interest attaches to adenosine triphosphate: first, because this substance has been shown to take part in several enzymic reactions in which phosphate groupings are transferred from one molecule to another, and it is suspected that in this way *energy* is transferred; secondly, because the substance *myosin*, which makes up a large part of the proteins of muscle, acts upon it, splitting off a phosphate group, a process which may be directly connected with the contraction of the muscle fibre; thirdly, because it is related chemically to the *nucleoproteins*. The latter are the substances

¹ A substance called *adenosine triphosphate* (in the presence of the appropriate enzymes) will give up one of its phosphate groups to glucose, leaving adenosine diphosphate. Again, the energy for the glucose-to-phosphate link comes from the breaking of the adenosine diphosphate-to-phosphate link.

Finally, the reconversion of this diphosphate to the triphosphate is an integral part of the complex process of glucose breakdown mentioned above, the energy needed coming from the progressive disintegration and oxidation of the glucose molecule.

which give the chromosomes of the cell nucleus their characteristic ability to take up certain dyes, and are suspected to be the basis of the structural units which correspond to the units of heredity, the genes.

It would be wrong to imagine that these discoveries do more than scratch the surface of the problem of synthesis in living matter, but they do encourage us to believe that the mechanisms involved, when they are fully revealed, will not differ fundamentally from what is already known.

The crux of the problem of the nature of living processes is undoubtedly the means by which proteins (or, rather, enzymes) are synthesized, because one of the essential features of living matter is its ability to reproduce itself. This, of course, does not mean that a growing cell is able to make more of *every* substance which it contains, for as we have seen, many of these substances can only be made by photosynthetic organisms. There is no evidence, however, that any organism can utilise within its cells the proteins of other organisms, even of individuals of the same species. In fact, there is a characteristic antagonistic response of the tissues to the introduction of foreign proteins, and of certain other substances of high molecular weight, which in some of the higher animals is the basis of resistance to infection. It follows that each organism makes its own proteins, and it is therefore not surprising that small but definite differences in protein structure can be detected between individuals of closely related species, and even between individuals of the same species.

We know so little of the manner in which proteins are synthesized that it would be pointless to pursue the matter here, except to mention that attention has turned, naturally enough, to the nucleoproteins,¹ as being the proteins most closely associated with self-reproducing structures, the genes, from another field of biology. They have a special interest, because certain of the plant viruses have been isolated in the form of crystallisable nucleoproteins. When a minute amount of the protein is introduced into the tissues of a susceptible plant characteristic lesions are produced (mottling of the leaves, for example), and from the affected parts of the plant relatively enormous quantities of the nucleoprotein can then be isolated and crystallised. Here are examples of *substances* which will reproduce themselves when they are placed in a suitable environment, in this case the cells of a plant. The

¹ J. Loeb, in *Darwin and Modern Science*, Cambridge, 1909, p. 270.

analogy with the genes in the normal plant does not need emphasis.

Since plant viruses, as agents of disease, had always been regarded as living organisms, the discovery that some at least were apparently "nothing but" nucleoproteins, which could be handled by suitable chemical techniques in the laboratory, and even crystallised (evidence of a degree of chemical purity), worried a good many scientists who had thought that all things could be classified either as living, or as non-living. N. W. Pirie has extricated them from their state of confusion,¹ and in so doing has shown the impossibility of establishing a criterion by which all living things can be separated from all non-living, in other words, that no such division exists. Nor, naturally, can one do more by the use of several criteria than by the use of one.

It must be admitted, though, that in his efforts to demonstrate the absence of any sharp dividing line between phenomena which are *broadly* classifiable into living and non-living he has tended to over-reach himself. Thus, in discussing the association of proteins with living organisms he used the existence of isolated enzyme systems in the laboratory, and the probable future synthesis of proteins, as excuses for rejecting the most promising criterion of life.

Others have argued that since proteins are found in dead organisms they cannot be regarded as characteristic of life. This objection is based upon a complete misunderstanding of the problem which we are discussing here, which is not the problem of the relation between life and death, but of the nature of that form of organisation of matter which we call living. We are accustomed to regard the distinction between life and death as sharp, because we look at it from the point of view of the conscious human being. In fact, death is not the opposite of life, but the result of changes in a living system which so disorganise it that it becomes incapable of maintaining itself in that form. In our own bodies cells constantly die and are replaced, without the body as a whole showing any loss of vigour; conversely, after bodily death the cells of some tissues may be grown in the laboratory for as long as one has patience to attend to them. When the Buchners squeezed the juice out of yeast cells they killed the cells, but the juice was still capable of fermenting glucose. By careful work we can separate from the juice one of the enzymes responsible for a chemical step in the fermentation, and if we choose we can store this more or less indefinitely as a dry powder, without loss of its enzymic activity. Where can one draw

¹ N. W. Pirie, in *Perspectives in Biochemistry*, Cambridge, 1939, p. 11.

the line between life and death? If the enzyme molecule is "living" it can be "killed" by treatment which changes the nature of its chemical groupings, in other words by a process which is capable of definition in terms of physics and chemistry.

Or we may approach the question from another direction. We know that an enzyme present in all cells utilising oxygen is prevented from working when cyanide is present. We can kill a rat just as easily (or more so) by introducing cyanide into its cells, as by banging it on the head, because once this enzyme is out of action the whole elaborate organisation of the rat's tissues breaks down, and after a short interval of time cannot be restored. We can achieve a less drastic interference with the rat's tissues by giving it an anaesthetic, which reduces the activity of its brain cells to such an extent that it loses consciousness. In this case the effect is not allowed to go to the stage at which it becomes irreversible, although a larger dose (an "overdose") of the anaesthetic will of course achieve this.

It seems clear from this that death is explicable in terms which we have used for a consideration of life. The death of a plant virus can be expressed in terms of changes in its chemical structure; the death of a rat, although it requires a consideration of the greater complexities of structure found in a mammal, does not in the last analysis introduce any new fundamental principle.

If we look back at some of the earlier upholders of materialist views of life, such as Le Dantec, Jacques Loeb, and Sir Edward Schäfer¹ (the writings of all of whom are contemporary with the address of F. G. Hopkins to which we referred at the beginning of this essay), we find that they derive their arguments from the field of physiology. Thus, Loeb describes his experiments on the artificial fertilisation of sea-urchin eggs, Schäfer the growing knowledge of hormonal regulation of processes in the mammalian body, and Le Dantec the phenomena of immunity to bacterial infection. They rightly draw the conclusion from the fact that many of the most complex processes in living organisms were influenced by physical and chemical stimuli, that the processes were based on physical and chemical changes. The forty years of biochemical research that followed have revealed a small but significant part of these changes at molecular level.

¹ F. Le Dantec, *The Nature and Origin of Life*, London, 1907; Sir E. A. Schäfer, *Life, Its Nature, Origin and Maintenance*, New York, 1912.

As knowledge has grown the interest in the nature of life has apparently declined, though this does not mean that a materialist view has been generally accepted. Thus as late as 1921 we can find the concept of "vital force" perpetuated as "biotic energy" by one of the pioneers of British biochemistry.¹ In more recent times physicists have attempted to import the indeterminacy principle into the chemical changes in living organisms (with the idea of safeguarding the "free-will" which they thought was being threatened by biochemistry), but Schrödinger² has effectively refuted them, and put the "quantum leap" in its proper place, not as a disturbing factor in the individual organism, but as the basis of the mutation of genes.

However, many scientists, including Schrödinger himself, cannot bring themselves to accept the implications of biochemical discoveries. They resent the idea that their own mental processes rest upon physical and chemical changes, believing that by this dependence some loss of mental freedom is incurred. Such ideas arise partly from a misunderstanding of the intimate relation between freedom and necessity,³ but also from a refusal to accept the concept of levels of organisation. With the development of increasingly complex systems the laws governing the behaviour of their less complex components are not abolished, but new types of behaviour become possible. To take a very crude example, the cellulose molecule is the same physically and chemically whether it is made into paper or cloth: no one complains that because cellulose can be investigated chemically this in some way restricts the number of different patterns which can be woven from cellulose fibres (nor, incidentally, do we attempt to explain these patterns in terms of molecular structure). Similarly, although the basis of mental activity is capable of investigation by the methods of physics and chemistry there is no reason to suppose that this prevents one from thinking a particular thought. Cellulose can be broken down by acid, and any fabric subjected to the acid will disintegrate; similarly, the chemical changes which underly thought are stopped by cyanide, and cyanide, as far as we know, inhibits every kind of thought.

So, when Schrödinger proceeds to deduce that "he" is "the person, if any, who controls the 'motion of the atoms' according

¹ B. Moore, *Biochemistry: a Study of . . . Living Matter*, London, 1921.

² E. Schrödinger, *What is Life?*, Cambridge, 1944.

³ F. Engels, *Dialectics of Nature*, London, 1940, p. 230.

to the Laws of Nature,"¹ or when Hinshelwood tells us that the rejection of "vital force" does not "lead to a materialist view of the world as a whole,"² one is inclined to believe that they have found the biochemist's journey to be a long and arduous one, and are looking for a short cut, or a long rest by the wayside.

To the Marxist our present information about the nature of life, though sketchy, is encouraging. Life can be considered as an evolutionary development from inanimate forms of matter, and represents a state of greater chemical complexity among the compounds of a limited number of elements, of which carbon is the chief. It maintains itself on this planet (at present) by virtue of its ability to tap the sources of radiant energy in the sun.

In contrast to idealist philosophers the Marxist sees a continuity extending at successively higher levels of organisation from inanimate nature through the more primitive living organisms to the development of a brain in mammals and of conceptual thought in the higher primates and man. In the past those who distinguish sharply between "mind" and "matter" have had to choose between introducing mind at the transition from inanimate to animate matter, ascribing an element of mind ("vital force," "élan vital," etc.) to all living organisms, a view which is in contradiction to the findings of biochemistry, and introducing it at the transition from ape to man. The second contention is not within the scope of the present article (nor of the writer) but it is nevertheless to be hoped that those Marxists familiar with modern research on this subject will find it possible in the near future to make an assessment of what is undoubtedly equally important for an understanding of the nature of life.

¹ *loc. cit.*, p. 88.

² C. N. Hinshelwood, *The Chemical Kinetics of the Bacterial Cell*, Oxford, 1946, p. 273.

Notes on the State and Constitution of the New Yugoslavia

BY JAMES KLUGMANN

I

"IN the past," wrote Edvard Kardelj, Vice-Premier of the new Yugoslavia, "the Constitution was the expression of the will and aspirations of the upper social and political circles and not of the vast majority who are the very foundation of our people. . . . In the old Yugoslavia, Constitution and laws were changed, governments and men came and went, but from the very beginning up to the April catastrophe [date of the Axis invasion, N.J.K.] power was in the hands of a clique who served the interests of political and social reactionaries, capital, great landowners, the dynasty and all manner of exploiters of the people."

When the Yugoslav State was founded at the end of the First World War, the peoples of Yugoslavia, Serbs and Croats, Slovenes and Bosnians, Montenegrins, Macedonians, were filled with high hopes for the future. It seemed that at last, after such prolonged and difficult struggles against encroaching Turks and the rulers of the old Austro-Hungarian Empire, these different South Slav peoples, so long separated, were to find their freedom, achieve their unity and fulfil their deepest aspirations. This, however, was not to be. The period between the two wars was a period of disillusion and disappointment. The people knew three oppressions—the oppression of a small social clique representing landowners, capitalists, financiers, the dynasty, over the vast majority of the people; the oppression of a "small clique of one nationality, the Serbs, over the other people of Yugoslavia; the oppression of international capital, which controlled a great part of the Yugoslav economy and held back economic development in the interests of the people.

The old Yugoslavia was a monarchy with a King at its head. The original Vidovdan Constitution embodied the sovereignty of State in the person of the King. The original Constituent Assembly was considered to derive its authority from the political acts of the Regent ("Declaration of Corfu" and "Proclamation of the Regent" of December 1, 1918). The ruler himself prescribed the scope of the work of the Assembly, retained the right to dissolve it, conditioned

State and Constitution of the New Yugoslavia

participation in the work of the Assembly by an initial oath of allegiance to himself. Even that which was democratic in the old Vidovdan Constitution was not operated by the rulers of Yugoslavia. Parliament was an instrument in the hands of the ruling class. The first Yugoslav elections of 1920 gave 58 seats to the Communist Party. But the Communist deputies were deprived of their seats, the Party banned and driven underground. Freedom of speech, association, Press was a mockery. Trade Union activity was suppressed by police violence. Following the Communist Party, other working-class and democratic organisations suffered attack—youth, women's, intellectual, student, professional associations. The few democratic rights that were granted in the first days were step by step abolished as the movement for democratic, national and social liberties grew stronger. Finally, on January 6, 1929, King Alexander swept away the last remnants of freedom. The Vidovdan Constitution was strictly centralist and made no allowance for the free determination of the different peoples composing the country. In the last years before the Axis invasion, successive governments, capitulating to Axis penetration in the hope of preserving their own privilege and power, transformed the Yugoslav State more and more into an instrument of foreign domination.

II

Much has been written of the Axis occupation of Yugoslavia and of the Partisan resistance led by the Yugoslav Communist Party. The story of that resistance-struggle—how from small groups of ill-armed men, fighting in the hills and forests, a disciplined Army was built up of well-nigh 800,000 men; how the Partisans fought for four years over forty divisions of enemy troops, causing nearly a million casualties; how the land was step by step liberated from the occupiers; how the struggle was waged not only against the invading forces but at the same time against the Axis allies within Yugoslavia, the bands of Pavelic, Nedic, Rupnik and Draža Mihailovic—something of all this has been told and understood. What has not yet, in this country, been sufficiently explained, is how in the course of the war, the basis was laid for the new Yugoslav popular democratic State.

As the Axis forces in April, 1941, overran the country, the old state apparatus crumbled and collapsed. Parts of the old machinery of state were taken over by the occupying forces. The Yugoslav

Government, headed by the King, fled abroad to inglorious exile, leaving the conquered country to its fate.

The old State crumbled. "It was, therefore, necessary for us," writes Marshal Tito, "in the very earliest stages of this struggle, that is as far back as 1941, to discard the former forms of authority, both in the villages and in the towns, and immediately to set about the task of establishing new forms of authority which we named, because of their character, National Liberation Committees. All the particularities of these Committees make them an authority of a new type, the most democratic form of authority after that in the Soviet Union. That we had discerned the wishes of the people was apparent from the fact that the people immediately started setting up such Committees, not only throughout the liberated territory, but also in the towns and villages situated in the parts which had not been liberated." In the very first days these Committees were created rather as organs of assistance to the Partisan detachments, but as the National Liberation Army developed and grew stronger, the Committees took on new tasks, performed the duties of local government authorities and assumed responsibility for all forms of civilian administration. By autumn, 1942, a large area of Yugoslav territory had been liberated. It became necessary to organise a political body for the whole of Yugoslavia that could take over from the Supreme Military Headquarters all political and Government functions. The first "Anti-Fascist Council of National Liberation of Yugoslavia" (A.V.N.O.J.) was constituted at Bihac in November, 1942, by delegates from National Liberation Committees from all parts of Yugoslavia. On November 29, 1943, in the little Bosnian town of Jajce, was held the second session of the A.V.N.O.J., and a supreme legislative body established with all the attributes of a Parliament. At the Jajce Conference the historic decision was taken that the Yugoslav State should henceforth be organised on a federal basis. "In order to carry out the principles of sovereignty of the nations of Yugoslavia," ran the resolution, "and in order that Yugoslavia may be the true home of all its peoples, and no longer an arena for the machinations of reactionary influences, Yugoslavia is being built up on a federal principle which will ensure full equality for the nations of Serbia, Croatia, Macedonia, Montenegro, Bosnia and Hercegovina."

Thus in the course of the war of liberation a state of a new type was developed. This state, based on the National Liberation Committees elected directly by the people themselves, had a

completely different social organisation from the old Yugoslav State. The old corrupt monarchy was replaced by a Republic. The old centralist State based on the oppression of nations was replaced by the New Federal State. "The new Yugoslavia," writes Marshal Tito, "was created in the process of the struggle for liberation on the ruins of the old Yugoslavia, the state apparatus of which had collapsed as soon as the country had been occupied." A new people's Army arose headed by workers, peasants, and intellectuals closely linked to the people.

Thus the change that took place in the course of the war was not only a change of government, of civil administration, of Parliamentary system, but, in the words of Edvard Kardelj, "a deep radical change, a revolutionary change, a transfer of governmental authority was brought about. In other words, power changed hands in our country. The anti-national, reactionary, exploiting social group was overthrown and power passed into the hands of the people in the true sense of the word, i.e. into the hands of the vast majority represented by the working people of town and village."

III

When the last enemy troops were chased across the northern frontier into Austria in May, 1945, the Yugoslav Government and people found themselves faced with a scene of terrible devastation and destruction, which make the worst blitzed areas of British towns seem like a paradise. Yet, under Communist leadership, the people set to work on reconstruction with the same courage and enthusiasm previously turned to the destruction of the enemy. During the war military experts at Western Allied Headquarters had deemed the exploits of the Partisans impossible. After the war reconstruction was carried out with the same lack of material equipment at a tempo declared impossible by the many U.N.R.R.A. experts despatched from London and Washington.

In the months before the introduction of the new Constitution (January, 1946) the new popular State was stabilised. With the basic change of power in the course of the war, changes of a radical nature in the socio-economic structure of Yugoslavia now became possible. The agrarian reform was introduced, the big estates divided among the people, and the key industries were nationalised. "The fact that the state apparatus of the Federated People's Republic of Yugoslavia is a new one," writes Boris Kidric, Minister

of Industry, "is of fundamental importance from the point of view of our economic development. Had a party, or a political grouping of the working masses or a definite exploited class, let us say the working class, come 'to power,' and remained 'in power' by means of the former state apparatus which corresponds to the power of the exploiting classes, no substantial change could have occurred in the character of our economy." Yet equally it was impossible for the general development of economy to lag behind that of the people's power. "In that case we should have been confronted with the alternative: either the character of our economy would have to be changed, or, if this contradiction had been allowed to exist for any length of time, the new form of political power would have collapsed. And, conversely, further changes in the character of political power now depend on further changes in the economy."

Thus in Yugoslavia, after liberation, three fundamental economic sectors were developed—the state, co-operative and private capitalist sectors. In the old Yugoslavia, state property was not people's property. It was property in the hands of that reactionary and anti-national class that dominated the old State itself. It strengthened the old system. In the old Yugoslavia the co-operative movement became the prey of capital and reaction. With the transfer of power, a radical change took place, and state property became the property of the vast majority of the people, strengthening the new popular régime. Thus to-day the state economic sector represents the main economic support of the broad masses of the people in the struggle for social development. The people's co-operatives, relying on the state sector, have the possibility of developing independently of capitalist influence and the various capitalist and land-owning groups. The private sector still exists and plays an important role in economic life, yet under the general control of the people's state. "The creation of the state sector of national economy," writes Andrija Hebrang, Chairman of the Federal Planning Commission, "has made it possible to do away with the blind working of economic laws and effect the transition to a conscious control of the national economy. Our people's state, which is a state of a new type, to-day guides the economic and social development of the country on the basis of a general State Plan. Economy in the old Yugoslavia was directed by bankers and industrialists, by wholesale merchants and large landowners, whose sole aim was to accumulate wealth for themselves. This

practice is ended for ever. Our people's state controls the national economy and its development in the interests of the economic and political strengthening of the community and the welfare of the working people."

This, of course, does not signify that the economic and political situation has now reached a final stability. It does not mean that reactionary economic and political forces have ceased resistance to the new popular régime. "It would be naïve," writes Kardelj, "to think that we have already dropped anchor in a calm harbour where the violent and dangerous waves of social contradiction can no longer reach us."

IV

"The new Yugoslavia," writes Kardelj, "was born in the days of grim struggle against foreign fascist invaders and domestic traitors. Its birth began with the first Partisan shots, it acquired its first features with the creation of the first Committee of National Liberation, it grew with the increasing establishment of unity and brotherhood among our peoples, it received the first formal recognition at the second session of the Anti-Fascist Council of National Liberation at Jajce. It was created by the fighters who liberated our towns and provinces and, shoulder to shoulder with the Red Army, liberated Belgrade and the capitals of our present Republics. It was built up by our workers and our entire working people who immediately after their liberation, hungry and in rags, set to work to raise from its ruins the homeland, which they now for the first time could call their own and which now for the first time, has indeed, become their homeland."

By January, 1946, already, a bare seven months after liberation, the first draft constitution stood before the National Assembly for discussion, the first new constitution in liberated Europe. The Yugoslav Government decided that before adopting a new Constitution, the draft should be put before the whole people for discussion, comment and amendment. In the course of the war the people had shown in no uncertain terms what sort of a Yugoslavia they wanted. It was considered only fitting that these same people should now be asked to give their opinion in all detail on the new Constitution that was to establish finally the new form of state. The draft was accordingly submitted. It was discussed everywhere. In town and village, in National Liberation Committee and Trade Union Branch, women's, youth and student organisations, amongst

teachers, merchants, and writers, inside the co-operatives, in the Holy Synod of the Serbian Orthodox Church, in the mosques, synagogues and Catholic organisations, discussion, debates and conferences took place. Recommendations of every type flowed in.

This mass discussion throughout the country gave the National Assembly greater confidence in its final decisions, gave them that great strength which can only result from mass popular support, and helped to establish still closer links between the National Assembly and the masses of the people.

The Constitution was not to be a programme for the future, to outline the sort of Yugoslavia it was hoped to develop. Its aim was to give legal expression to the administrative, political and socio-economic system actually existing in the State. "The Constitution," wrote Milovan Djilas, "finally legalises, finally establishes in legal form, the claims and achievements of our people, the watchwords, the programme, which our people set before them during the war under the guidance of their leader comrade Tito. . . . We may therefore look upon our Constitution . . . as one of the conclusive acts of that struggle, an act which gives final form on a legal basis to the programme which we put forward at Jajce in 1943." In a number of amendments to the draft constitution put forward in all good faith by popular organisations, confusion was shown between the nature of a programme and of a Constitution. These proposals were rejected by the National Assembly.

The final Constitution, which was proclaimed and became law on January 31, 1946, is divided into sixteen chapters with 139 Articles.

In the first place the Constitution lays down the nature of the people's authority and how it is established. Article 6 states that "In the F.P.R.Y. all authority derives from the people and belongs to the people. The people realises its authority through freely elected representative organs of state authority, the People's Committees, which from local Committees up to the Assemblies of the People's Republics and the Federal Assembly of the F.P.R.Y., originated and developed in the course of the National Liberation struggle against fascism and reaction and are the basic achievement of that struggle." "All the representative organs of state authority," states Article 7, "are elected by citizens on the basis of universal, equal and direct suffrage by secret ballot. In all the

organs of state authority the people's representatives are responsible to their electors. The cases in which, the conditions under which, and the manner in which electors may recall their representatives even before the expiration of the period for which they were elected will be prescribed by law." There exists, therefore, a single chain of authorities from the local committees up to the assemblies of the people's republics and the Assembly of the F.P.R.Y. in which the whole state power is concentrated.

The Constitution states that "the right to elect and to be elected to all organs of state authority" is possessed by "all citizens who have reached 18 years of age regardless of sex, nationality, race, creed, degree of education and place of residence" and confirms the equality of men and women "in all spheres of state, economic, social and political life." Women, soldiers and youths between 18-21 have the vote for the first time and the first election in the new Yugoslavia saw an electorate over double that of any previous election.

The Constitution lays it down that the organs of state shall, at every level, find forms of close and constant co-operation with the mass popular organisations. "In the execution of general and local duties, the People's Committees are to base their work on the initiative and broad participation of the masses of the people and on the organisations of the working people" (Article 109). It obliges the Committees at regular intervals to report to their electors (Article 112). It lays down the periods of election for the People's Committees at different levels:—Local committees for two years; committees of districts, cities, countries and regions for three years; and People's Assemblies of the Republics and the Assembly of the F.P.R.Y. for four years.

Thus, by the manner of election, the nature of the electorate, the constant contact between the people, the mass organisations and the organs of state, the electorate's right to recall its representatives, the Constitution confirms a type of state organisation that is democratic both in form and in essence. "The new Yugoslavia," declared Kardelj, speaking on the new Constitution, "is, therefore, a people's state, in which the will of the vast majority of the people is decisive not only in form, not only at elections, in numbers and votes, but also in fact, through the social reorganisation of our People's Republic, the fact that in our People's State the will and interests of the majority of the people, that is the working people, prevail."

The Constitution embodies and confirms the correct solution to the national problem adopted by the Yugoslav people in the course of the war and first incorporated in the new state organisation in Jajce in November, 1943. The first Article of the Constitution declares that the "F.P.R.Y. is a federal people's state of republican form, a community of peoples equal in rights who, basing themselves on the right to self-determination which includes the right to secession, have expressed the will to live together in a federal state." Article 2 outlines the composition of the new Yugoslav Republic—the six People's Republics of Serbia, Croatia, Slovenia, Bosnia-Herzegovina, Macedonia and Montenegro, and states that the Serbian Republic includes the Autonomous Province of the Voivodina and the Autonomous Region of Kosovo-Metohija. Article 11 states that each Republic makes its own Constitution, reflecting the particular features of that Republic but in conformity with the general Constitution of the F.P.R.Y. and Article 13 guarantees that "the national minorities in the F.P.R.Y. enjoy the right to and the protection for cultural development and the free use of their own language." Articles 44–48 lay down the frontiers of jurisdiction between the Federal Government and the Government of the six republics.

Chapter VII of the new Constitution outlines the nature of the People's Assembly of the F.P.R.Y., the supreme organ of state authority. The People's Assembly consists of two Houses, the Federal Council and the Council of Nationalities. The Federal Council is elected from the F.P.R.Y. as a whole, with one deputy for each 50,000 inhabitants, whilst the Council of Nationalities is elected by each of the several Republics, with thirty deputies for each Republic *irrespective of numbers*, twenty for each Autonomous Province and fifteen for each Autonomous Region. Both Houses exercise equal rights, both may introduce Bills, and no Bill can be passed without a majority of votes from *both* Houses.

Chapter IV of the Constitution defines the social and economic structure of the new State. Three forms of ownership are recognised—state, co-operative and private. "All mineral and other wealth in the bowels of the earth, all waters, including mineral and curative water, all sources of natural power, all means of rail and air transport, all postal, telegraph, telephone and radio services are the common property of the people." "Foreign trade is under the

control of the State." "With the aim of protecting the vital interests of the people, of raising the people's well-being and of the proper utilisation of all economic possibilities and forces, the State gives direction to economic life and development by means of a general economic plan. . . . In its realisation of the general economic plan and economic control the State relies upon the co-operation of the workers' and other employees' unions and other organisations of the working people."

"The State," declares Article 17, "concentrates particular attention and affords assistance and facilities to the people's co-operative organisations." "Private property and private initiative in economy is guaranteed" (Article 18). But "no person may make use of private property to the detriment of the people's community. The existence of private monopolistic organisations, such as cartels, syndicates, trusts and similar organisations, created for the purpose of dictating prices, monopolising markets, and harming the interests of the national economy is prohibited."

"The land," states Article 19, "belongs to those who work it. . . . No large land properties may be held by private persons upon any grounds whatsoever. . . . The State particularly protects and assists the poor and middle peasant through its general economic policy, by cheap credits and by the taxation system."

"By economic and other measures," states Article 20, "the State assists the working people to associate together and organise for defence against economic exploitation. The State protects persons in their quality as employees by special insurance of the right of association, by limitation of the working day, by ensuring the right to paid annual holidays, by controlling the working conditions, by care for housing conditions and by social insurance."

Chapter V of the Constitution outlines the Rights and Duties of Citizens. It guarantees the equality before the law of all citizens without regard to nationality, race or religion. It makes the propagation of national, racial or religious hatred or dissension punishable by law. It ensures women equal rights with men in all fields, lays down that women will receive equal pay for equal work and that "the State particularly protects the interests of mothers and children, by the foundation of maternity homes, children's homes and day nurseries, and by the right of the mother to absence with pay both before and after confinement." It guarantees freedom of

conscience and religion, and lays down the separation of Church from State. Citizens are guaranteed freedom of press, association, assembly, public meeting and demonstration. The inviolability of the person of citizens is guaranteed. No person may be detained in custody for longer than three days without a written and reasoned decision of a Court of Law or a Public Prosecutor. No person may be punished for a criminal act without a decision of a competent court.

Article 36 declares that "the State cares for the improvement of the health of the people by the organisation and control of health services, hospitals, dispensaries, sanatoria, curative and convalescent institutions, and other health institutions." Article 38 makes schools a state responsibility, separates schools from the Church, and declares elementary education obligatory and free.

From this brief summary of the main contents of the new Yugoslav Constitution the deep popular character of the new State is revealed. The State is shown as a state intervening at every stage in the interests not of the old ruling class but in the interests of the vast majority of the people. No rights are given to the citizen without the wherewithal to enjoy those rights.

"Our new Yugoslavia," declared Kardelj, introducing the draft constitution to the National Assembly, "may rightly be called a people's republic. It is the people's because in it for the first time in history, the people, that is the interest of the people, is the decisive factor."

V

To all serious students of Marxism, and indeed to all progressive people, the study of the Yugoslav Liberation Movement is important, very fruitful, and full of deep lessons. The leaders of the Yugoslav Liberation Movement were theoreticians of Marxism who knew how to use Marxism as a guide to action. "In the National Liberation struggle," wrote Marshal Tito, "and in the results of that struggle, there are the elements of historical laws of social development, discussed by our great teachers Karl Marx and Friedrich Engels, and theoretically enriched, completed and applied in practice, by our great teachers V. I. Lenin and J. V. Stalin. These laws of historical development assumed, and still assume, to a certain degree in Yugoslavia, new forms which were a result of

the new character of the war and of the new consequences which the war had, which are conditioned by almost thirty years of existence of the great land of Socialism, of the Soviet Union, and the tremendous and comprehensive advance it has achieved. The specific character of the development, and the results of that development, in our country, are not, therefore, in contradiction to the teaching of Marxism and Leninism, but are fully in accordance with these teachings. This is yet another confirmation of the genius of our great teachers, who have always taught us that Marxism-Leninism is not a dogma but a guide to action." The nature of the Second World War was different from the character of the First World War. The relations of class forces in 1939-45 were different from those of 1914-18. It was precisely because, armed with the weapon of Marxist theory, the leaders of the Yugoslav National Liberation struggle, with Tito at their head, were able to make an accurate study of specific Yugoslav conditions, that they were able, in the midst of most bitter day to day struggle, to see clearly their ultimate aims, and to lead their people to victory.

The Yugoslav revolution followed a different course from the great October Revolution of the Russian people. The Russian revolution, the struggle for power of the Russian workers, followed a long period of struggle against an unjust imperialist war. The struggle of the masses of Yugoslav people for democracy, for people's authority, proceeded in the form of a struggle against the foreign fascist invaders and the collaborators within the country. The Yugoslav uprising against the invader took place in conditions marked by the active passing over to the side of the enemy of the Yugoslav ruling classes. The Yugoslav ruling classes, to preserve their past privileges, power and position, went over to the Axis, and the Yugoslav working people, guided by the Communist Party, led the struggle for national liberation and independence. In this situation, the people led by the Party, solved the question of power by a series of continuous advances.

"We, the people," writes Milovan Djilas, "solved the question of power gradually. We started by building up the people's authority and developed it in the course of the struggle against the invaders and those who were helping them, while the reactionaries treated the question of power as the principal and practically the only question. And it so happened that they, who were fighting for power and power only, lost it, while the people, who, it is true, were aware that something new would arise, that they would take

power into their own hands, but who considered their most important and immediate task was to drive the foreign enemy and their hirelings from the country—the people obtained power. . . . Power was conquered by those very same masses, who had arisen in revolt against the invaders, with the very same weapons with which they had driven out and crushed the invaders and their satellites.”

The people solved the question of power gradually. The special lines along which popular authority in Yugoslavia developed means that still to-day, particularly at lower levels, it reflects the uncompleted process of the people's struggle for their own popular, consistently democratic authority. “This means,” writes Djilas, “that the lower organs of authority, the people's committees, which are consistently democratic in form by their mode of election and work, are in many cases (particularly in places liberated in 1944–45) not consistently the bodies of the democratic working people in the struggle against the remnants of reaction, but are themselves the scene and the object of bitter political struggle. This means that people's committees, regardless of their consistently democratic form and their basically profound democratic and popular character, have still to acquire, in the process of further development and further struggle their democratic content. They have still, that is to say, to become organs of the working people in the struggle for a genuine democracy—both in form and content, in the struggle against all the enemies of the people, instead of being merely the scene of the struggle. Such are the lines along which the people's committees must necessarily develop. How long this development will last and when it will be completed, is impossible to foresee, nor could it be correct to do so, because this development directly depends upon further changes in economic conditions.”

VI

Of essential importance in the development of the new Yugoslavia was the powerful alliance of the working people, created in the course of the liberation struggle under the leadership of the Communist Party. The People's Front of Yugoslavia has not been clearly understood in this country. It is not a mere electoral coalition, a bloc of progressive groups and parties or even an alliance of workers and peasants. “It is,” wrote Marshal Tito, “an alliance of all the patriots, of all the progressive people of our

country, of all those who have embarked upon the new task of building up and strengthening the new Yugoslavia. It is, and should remain, the alliance of the working people; of the workers, peasants, people's intelligentsia and other working citizens of our country.”

Different political groups and parties support and enter the People's Front. The Trade Unions, Popular Youth organisations, Anti-Fascist Women, numbering together millions of members, have joined the People's Front. But the organisational basis of the Front is that in its *basic* organisations and *lower* Committees there is no distinction of party or group. The People's Front, which was formed in struggle against the occupation forces, against the domestic traitors, in the fight for the fraternity of all the Yugoslav peoples, in the organisation of the Liberation Committees, has grown still stronger in the period of peace. It showed its strength in the victorious elections of November 11, 1945. It is now the main force leading the struggle for the fulfilment of the Five Year Plan. It is a wide, popular, all-national political organisation representing the political unity of the vast majority of the Yugoslav people, a new form of political organisation, and under the leadership of the Communist Party, the main bulwark of the new popular democratic state.

Since the war the support for the new Yugoslav democracy has still further widened. The wide basis of the people's authority is the source of its great strength. Foreign reaction, above all in this country and in America, have attacked the new Yugoslavia as a one-party dictatorship, the dictatorship of the Communist Party. “All the trash, indulged in by the enemies of the new Yugoslavia regarding dictatorship in our country,” wrote Marshal Tito, “is of a purely propagandist character. Its purpose is to frighten the petty-bourgeois masses in other countries because the popularity of the new Yugoslavia is very great. . . . If the reactionary gentlemen feel it is a dictatorship when we do not allow the remnants of an insignificant handful of lay and clerical reactionaries to destroy the achievements of our great struggles for liberation, then let them call it a dictatorship. But it is a people's dictatorship, because it represents 96 per cent. of the people. The dictatorship of 96 per cent. over 4 per cent. is, in other words, the most genuine people's democracy.”

Communications

MATERIALISM AND ITS ADVOCACY

BY ALFRED SOHN-RETHEL

THE essay, "A Materialist Evaluation of Logical Positivism," by Maurice Cornforth, in No. 2 of the Second Volume of *The Modern Quarterly* came indeed as a welcome contribution to the critical tasks of this journal. It is high time that materialists took up the dangerous challenge of positivism in its modernised form. Cornforth has defined the dangerpoint accurately by stressing that "logical positivism in actual fact protects and screens idealism by turning upon its only real opponent—materialism."

One may indeed doubt whether the logical positivists have themselves ceased to be idealists. The essential function of the idealistic fetishism is to keep science and knowledge worlds apart from manual labour. Labour must not aspire to taking social production under its own control. Old-style metaphysics located logics and science in a world of God; Kant placed them in a world of reason. Historical materialism must insist on their location in the world of history, ultimately understood in terms of manual labour. Logical positivism proclaims that no location of logics and science is possible at all. They are declared taboo to anyone except the logicians and scientists and their delegates in the field of practice, the engineers of technology and planning and, presumably, of "scientific" management. These priests and adjuncts of the magic of SCIENCE are above an allegiance to either capital or labour, so we are to believe. The logics of science is free from any reference to existence. If this is so, it only goes to show that the questions of existence are not a matter of the "logic of language." The autonomy of the scientists is like the sovereign rule of James Burnham's "managers"—an illusion. The capitalists who are meanwhile in power, can laugh at this. For labour, the foundations of its struggle are at stake.

In the present period of transition not everything that bears meta-capitalistic appearances can be trusted to be socialist. Unless the lines of division are drawn with the necessary precision much confusion is bound to ensue in the Marxist ranks. And a great deal depends on how we advocate our standpoint. In reply to the positivistic challenge, advanced in the pure name of science, we are pledged to prove the Marxist principles of thinking vindicated on the strictest logistic and epistemological standards.

Materialism is no Dogmatic Philosophy

Now we find M. Cornforth put the "standpoint of a consistent . . . materialism" in the following terms:

"This standpoint insists first and foremost that the external material world exists, independent of any consciousness, and is reflected in our consciousness; that matter is prior to mind, being prior to consciousness; and that therefore ideas and thoughts can be shown to have their origin in material conditions. It definitely deals with *things* and not words, with *the material conditions that give rise to thoughts* and not with thoughts in the abstract. And from this basis, materialism can show: (1) the material and historical conditions which give rise to religious ideology and idealism; and (2) that this whole ideology is without rational foundation." (Italics by M. Cornforth.) This is hardly the kind of statement which can serve the purpose.

It is rather a model of that naïve philosophising which does such a disservice to the Marxist cause in the eyes of academic theorists. Nor could this instance be called an isolated case. The truth is that it rather typifies a widespread rule of Marxist "philosophical" spokespersonship. Statements of this kind are not only "pre-scientific" in the sense of modern positivism, they are also pre-Kantian in the sense of current idealism. Is Marxist materialism really so ill-founded that we have to depend on assertions of the purest dogmatic and ontological kind to put it before the world?

There is more at stake in this than a question of strategy of ideological attack and defence. There is a danger of serious falsification of our own thought. Cornforth speaks of "the standpoint of a consistent materialism." Does he not realise that a dogmatic statement of the materialistic standpoint is a contradiction in terms? Concepts like "matter" and "mind," "being" and "thinking," etc., are terms in which a philosopher claims to pronounce the truth on the sovereign authority of abstract reason. If the doctrine he formulates in these terms is to the effect that "thinking" does indeed possess such authority over "being," then his attitude is at least in keeping with his teaching. But for a materialist to deny that authority in terms which assume it, is utterly incongruous. Whenever a materialist finds himself involved in suchlike disputes he can be sure he has lost track of Marxism.

Materialism is a Methodological Postulate

"It is not the consciousness of men," says Marx, "which determines their being (*Sein*) but, on the contrary, their social existence (*gesellschaftliches Sein*) which determines their consciousness." This was probably the sentence in Cornforth's mind when he wrote the lines we quoted. It would be a fatal mistake, however, to read this sentence as a statement of dogmatic philosophy. It is true, in the first part the words "consciousness" and "being" have still the ring of the abstracts known to philosophers. But they are used by Marx in an ironical sense,

mimicking, as it were, the language of idealism. In the second part, the adjective "social" added to "existence" at once removes all possibility of reasoning about the statement in the abstract and of groping for a purely conceptual definition of the term thus predicated. The addition of the word "social" also changes the meaning of "consciousness." If consciousness is to be understood as historically determined by social existence, the word is merely a name covering various specific ideas and forms of thinking which men have developed during the course of their history. It ceases to denote an abstract entity which we bear somewhere in us, as a spiritual something unaccountably fixed on to our body or blown into it by God's breath the day he created Adam.

The two parts of the sentence are not coterminous, and deliberately not. The terms of the first are dogmatic, those of the second historical. That people's ideas and notions are determined by their social existence is a finding drawn from historical studies. This finding can never constitute an inherent truth. It is not a premise from which to draw deductive conclusions, like, for instance, Cornforth's "therefore (!) ideas and thoughts can (!) be shown to have their origin in material conditions." He should have said that, if there was truth in what Marx says, it ought to be possible to explain this or that idea historically from social existence. The sequence is just the reverse of what Cornforth intimates it to be. We have first successfully to achieve historical explanations of ideas—and preferably of ideas of powerful systematic implications—and then we can challenge the idealists to see and judge for themselves. The truth of materialism is in the nature of an object lesson, not a certainty *a priori* of reason. Some Marxists may be able to claim that, to them, the whole of history in every square inch of their daily experience and throughout the millennia of the past is one incessant object lesson of the materialist truth. But to anyone else whose false consciousness blinds him, the truth still remains to be demonstrated as it occurs in the concrete. No manner of abstract arguing will put him wise because it is the logic of abstract arguing of which his false consciousness is made.

Hence, it is no good asserting that "social existence determines consciousness," the point is to show that it is so. The Marxist pronouncement has no other value than that of a methodological postulate. We are not asked to believe in it but to follow it out. Marxism is action, whether theoretical or practical. Its touchstone is achievement, not "the thought behind it."

Materialism versus Empiricism

Marx has himself established an object lesson of the truth of his materialism both in *Capital* and in his *Critique of Political Economy* of

1859, where, in the introduction, the quoted sentence occurs. It is worth studying the Marxist method on the model set up by himself.

One of the objections we always encounter from academic teaching is that the whole juxtaposition of "social existence" to "consciousness" amounts to a naïve ontologism. What do we know of social existence except through our own consciousness of it? And how is it possible to guard against the hypostatization of all manner of ideas, preconceptions, and standards of value in our approach and our description of what we think is "social existence"? Yet we claim to judge and criticise all ideas, including our own, in the light of their determination from "outside" consciousness. Not a single step could we take in carrying out our proclaimed principle without having to beg it. Before starting on our job we need a critical sifting of our own assumptions, and this necessarily requires a *prima philosophia* which Aristotelians seek in ontology, Kantians in epistemology. Thus, before we can start to follow out the postulate of materialism we find ourselves landed in idealism.

This objection must be met, it is no futile argument. In actual fact it is a precise description of what happens to the non-materialist, bourgeois historians and sociologists. And for us Marxists, it is in the countering of this argument that we strike the dividing line between us and empiricism.

The entire profession of academic philosophy swears by the axiom that "no empirical fact can ever prevail against an argument of logic." The "empirical fact" is the fact of the empiricist, the fact or event, that is, which some individual has actually observed or experienced. The world of these facts does not yield the normative standards on which they could be judged. To decide upon these standards is the exclusive prerogative of the epistemologists. On this, both the epistemologists and the empiricists are agreed. It is an error to present the philosophical idealists and the prophets of empiricism as opponents to each other. They both play the same game, although they have separate parts in it.

It is essential to realise that Marx does not recognise this disjunction between "logic" and "empirical fact." In his method he cuts across the traditional antithesis, and the important point is that he does so on strictly critical standards of thinking.

Marx's Own Object Lesson

Marx's *Capital* bears the sub-title *Critique of Political Economy*, the same as formed the main title of the earlier study.¹

¹ I confess that I am at a loss to comprehend what made Engels agree to having the original sub-title changed for the English edition to *A critical Analysis of Capitalist Production*. He himself had called his own first brilliant intimation of the undertaking *Outlines of a Critique of Theoretical Economics (Umrisse zu einer Kritik der Nationaloekonomie)*, 1844.

"Political Economy" is the name denoting the classical doctrine of systematic economic thinking, i.e. that mode of thinking which started with "old Barbon" and Sir William Petty and culminated in the works of Adam Smith and David Ricardo. It is not the name of the historical realities of social existence to which that doctrine refers. Thus Marx's subject matter is consciousness, thoughts, not things. It is the concept of "value," "capital," "profit," "rent," etc., as he found them defined and discussed in the writings of the economists. He does not deal directly with realities, does not elaborate concepts of his own which, as "correct" ones, he would oppose to the "false" ones of the economists. His approach is characteristically different. It is an approach to reality, but by way of the "critique" of the historically given consciousness.

Following the Smith-Ricardian concept of "value," Marx defines as "commodity" the reality to which it refers.¹ He then analyses commodity (not the concept of value) insisting all the time on finding in it the correspondence to the concepts and distinctions of the economists, and what he finds is—the historical origin of the seemingly timeless concept of "value." It is on this purely critical line of procedure, on the standards of the very concepts he is out to criticise, that he establishes the determination of a given mode of consciousness by social existence, and thereby, as the intended result, succeeds in uncovering the true reality of that social existence.

Thus, far from hypostatizing any concepts and assumptions, Marx, on the contrary, starts out from suspecting everybody's ideas and notions, his own included. They are the notions and ideas which this world of ours imposes upon us. To the empiricist they are the prime material from which he coins the "truth." Marx looks upon them all as potentially false, as the deceit of our world just as likely as a glimpse of truth.

The truth about our world is concealed to everybody under the spell of his false consciousness. When our academic opponents ask what we know of that social existence which we oppose to consciousness, our answer would be: we know of it as little as you do. But we know how to find out. The way to do so is to trace the genetical origin of any current ideas and concepts, on the very standards of them. Social existence is that which we shall find determines these ideas and concepts.

Read as a statement of an inherent truth the Marxist sentence is worth less than nothing. It is a link-up of two questions each begging the other. To know how to judge consciousness we are referred to social existence, but to know about social existence we are referred back to consciousness. Understood, however, as a methodological postulate the sentence says everything. For this interacting reference is precisely the movement we have to carry out in our actual search. The Marxist

¹ For it is as a "huge accumulation of commodities" that capitalist society appears, "appears", that is, as seen through the spectacles of the established mode of thinking. Cf. opening sentence of *Capital*.

method in *Capital* is the continuous critical reference of concept to reality, of reality to ideology. Reality is put on trial upon the summons of established theory, and, in the face of reality, theory stands convicted as necessary, and necessarily, false consciousness.

Necessary False Consciousness

This term is an all-important one to historical materialism. The various notions and ideas men form in their historical world and surroundings are of very different weight and consistency. Some are formed in a slipshod manner, held one day and dropped or modified the next. Some are cranky and neurotic, peculiar to one individual or another. Some are freakish, based on unclear thinking. Very little of value to a materialist can, as a rule, be gained from tracing ideas of this kind to their genetical condition. If the ideas are accidental themselves, their genetical basis is accidental too. The same is true of ideas resulting from a personal bias for this or that political or social cause. They do not reflect any of the necessities and impersonal forces governing the historical course of our social world. In order to penetrate into the foundations of this world and to learn how it holds together and how it could be changed effectively we must seize upon "necessary false consciousness" as subject matter of materialistic critique.

Before Marx started on the writing of *Capital* he spent years reading the whole of economic literature. These studies were on the line of purely inherent criticism of the theories as they stood, and were aimed at sifting out the logically sound, unimpeachable core of economic thinking from anything traceable to faulty argument. The faulty parts he discarded and only on the hard, systematically valid core of the science did he base his *Critique of Political Economy*. With these critical siftings Marx filled copious notebooks of which an important selection was posthumously published in three volumes as *Theorien über den Mehrwert* (*Theories on Surplus-Value*), unfortunately available in English only in a few odd copies of a shamefully bad translation.

Necessary false consciousness, thus, is not faulty consciousness. It is on the contrary logically correct, inherently incorrigible consciousness. It is called false not as against its own standards of truth, but as against social existence. Roughly, the Marxist approach to historical reality can be understood as answering the question: What must the existential reality of society be like to necessitate such and such a form of consciousness? Consciousness fit to serve as the theme of an enquiry of this kind must be socially valid, free from accidental flaws and personal bias. Necessary false consciousness is (1) necessary in the sense of faultless systematic stringency.

Necessary false consciousness is (2) necessarily determined genetically. It is necessary by historical causation. This is a truth of existence, not

immanently inferable from the consciousness concerned. It is the truth specific of materialism.

Necessary false consciousness is (3) necessarily false consciousness, genetically determined so as to be false by necessity. Its falseness cannot be straightened out by means of logic and by conceptual adjustments. Historical materialism rejects the Kantian idea of epistemology as ultimate *arbiter philosophiae*. Consciousness is not the function of a "mind" capable of absolute self-criticism on lines of pure logic. Pure logic itself does not control, but is controlled by, its timeless idea of the truth; of this idea itself there is no immanent criticism. Necessarily false consciousness is false, not as a fault of consciousness, but by fault of a historical order of social existence causing it to be false. The remedy is in a change of this order, a change which would remove powerful and deep-rooted characteristics upon which that causation is proved to rest. Marx lays great stress upon the fact that his critical disclosure of the fetish character of the value concept by no means does away with the spell of this concept which capitalistic commodity production must cause as long as it is allowed to remain in being. Man, in the social sense, is not wrong, he is deceived. He is innocent of his necessary false consciousness, and no amount of cruelty and slaughter ensuing from it among men can impair the possibility for mankind of fighting its way through to a classless society.

Lastly, necessary false consciousness is (4) necessary pragmatically. It is necessary for the perpetuation of the social order in which it holds sway over men's minds. Where this order is based on social class rule the necessary false consciousness is the consciousness needed by the ruling classes to maintain their rule. On the other hand, the false consciousness of a ruling class is necessary false consciousness only so long as their rule is itself historically necessary and continues to be irreplaceable for reasons of the given stage of development of the productive forces. Necessary false consciousness has its roots, not in the class struggle, but in those conditions of historical necessity out of which class antagonism itself develops. Marx has proved the value concept, for instance, to be the fetish concept of the form of commodity, and commodity exchange to precede the rise of class societies. So long as a certain system of social class rule is historically necessary and irreplaceable for the said reasons the false consciousness of the ruling classes is truly representative of the interests of mankind. It is generally progressive and its character as class consciousness irrecognisable to its holders. Political economy lost its innocence and scientific integrity only when, in 1830, the illusion broke and the class character of bourgeois society became patent. The events of that year "sounded the death knell of scientific bourgeois economics."¹ The "bourgeois vulgar

¹ Preface to Second Edition of *Capital*.

economics" which followed was "no longer of scientific, but only of historical interest."¹ Bourgeois class consciousness, in other fields just as much as in economics, came to mean, not false, but falsified consciousness. This kind of class consciousness (the only one that vulgar Marxists seem able to grasp), is, to Marx, a subject not of "critique" but of contempt. Being no longer necessary false consciousness it is useless for his methodical purpose.

The Philosophical Issue

The reality, then, to which Marx critically opposes the various forms of consciousness of men is the historical one of their own social existence. It is not "matter" or the "external material world independent of any consciousness." Our notions of things and the concepts in which we undertake their systematisation are historical products themselves.² So are science, mathematics, physics, etc. It is for the historical materialist to account for the rise of science in history, not for the logics of natural science to supply the principles of historical materialism.

To reason about the world's existence is not one of a historical materialist's commitments. If ever he finds himself involved in arguments of this nature the line to take is the historical critique of the standards of thinking on which the world's existence ever came to be questioned. But for a materialist to embark on dogmatic reasoning himself to combat idealism is like throwing oneself in the fire in order to extinguish it.

The philosophical issue between Marxist materialism and idealism, thus, is definitely not in the question of "which is prior, matter or mind?" Any formulation drawing its argument from the arsenal of traditional dogmatic thinking is incongruous and can only involve us in difficulties and self-contradictions. The contrast is much more basic than that. It is between the Marxist mode of thinking and the whole of the dogmatic mode of traditional thinking. In fact, the issue resides in two contrasting conceptions of the truth itself.

Dogmatic thinking, in all its variants, is pledged to the conception of the truth as timeless, Marxist materialism conceives the truth as timebound. Now, under a timeless conception of the truth, idealism is the only consistent standpoint of thinking. If the truth is timeless, the spatio-temporal world cannot be ultimately real and the standards of distinction between true and untrue, i.e., the standards of logic, must be of a transcendental, extra-temporal, order. Under the conception of truth as timebound, per contra, materialism is the only consistent standpoint of thinking. And conversely, materialism is consistent with itself in method and doctrine only as a quest for timebound truth.

¹ *Ibid.*

² See Marx's apt remarks in *German Ideology* addressed to Feuerbach where the latter has "Man" face "Nature" in the shape of a cherry tree.

Timebound truth is an existential, not a cognitive, ideal. The predicates of "false" or "correct," with Marx, apply to consciousness in relation to the existential reality of its holders, not to a concept in relation to an "object of cognition." The qualification of that existential reality as "social" derives from the fact that one will always find, as a truth of existence, necessarily determined forms of consciousness to be genetically conditioned by the social orders of existence, not by individual existence. The individual never commands the conditions of his own existence. Hitherto in history social existence has always been such as to necessitate false consciousness. Fulfilment of the ideal of timebound truth would be through the creation of a kind of social order allowing for correct consciousness. Such a social order could, by factual implication, only be a classless one. It would still imply continuous change. The historical potentiality of such an order is ascertained and the way of its political achievement explored by accounting for the necessary false consciousness in present and past history. Historical, as distinct from immanent, critique of the given forms of consciousness is, thus, the theoretical part of the quest for timebound truth. In this task the postulate of timebound truth, i.e., the equation between social existence and consciousness, itself constitutes the critical principle. This should make it abundantly clear that this postulate must never be presented in a dogmatic form as a hypostasis, lest the rational foundation be taken away from the materialistic position.

Natural science, like mathematics, physics, etc., is a functional part of the social life process. Its logic is based on the abstraction from our own timebound existential condition. It is from this abstraction, not from any absolute root and spontaneous font, that the logic of natural science derives its character of timelessness. How this abstraction comes about is itself a historical problem (and a solvable one). There is a timebound cause for timeless logic.

A logic based on the abstraction from our own historical existence evidently cannot serve the understanding and criticism of our existential condition. All general philosophy of things in the timeless terms of that logic is false consciousness. If this were all the logical positivists are saying we could be in full agreement with them and would welcome the fact that they have discovered what Marx knew a hundred years ago. But the logical positivists make themselves a philosophy of their negation of philosophy. They realise that the timeless logic of mathematics and science does not involve a reference to existence; indeed, if it did, the existence referred to would be the timeless one of a transcendental subject or object of cognition. Such insight should be sufficient to teach the positivists to leave the magic circle of timeless philosophy. Instead, they insist on the negative affirmation of timeless truth. The timeless conception of the truth is still the only one known to them. They

remain bound by the spell of it, and from all their negations of dogmatic philosophy they reach the dogmatic conclusion that—agnosticism is the last word of philosophy. In the field of existence nothing can be known. This is a perfect sanction for the last word of capitalism that in the field of existence all is allowed.

There is a clear contrast between the logic of natural science and the timebound existential reality from which it makes abstraction. The understanding of historical reality is dialectical, not mathematical. Dialectics is the logic of timebound truth. It is logic of existence as distinct from logic of pure thinking which, whether mathematical or conceptual (dogmatic philosophical), is bound to timeless truth. In particular, dialectics does not consist of a fixed set of rules which could be learned in the abstract. All we can do to "learn dialectics" is to train ourselves to be able better to recognise and understand dialectics when we meet it. Dialectical materialism and historical materialism are synonymous terms. From the materialistic standpoint, human history is part of natural history and Nature is a historical, evolutionary process. Dialectical materialism of Nature would be historical materialism of pre-human Nature; it would not, however, be a science for the prediction of recurrent events.

* * *

ALFRED SOHN-RETHEL'S contribution raises a point of fundamental interest, namely, the understanding of materialism as a methodology. I agree with him on the necessity of such an understanding. Yet to understand materialism exclusively in the light of a methodology is to misunderstand it.

For instance, it can be said that science uses causality as a methodological principle. Does one therefore say that causality is *only* a methodological principle, and that the assertion of causality in nature is a dogmatic myth? This can of course be argued. But what I want to point out is that those who argue that causality, for instance, is to be understood exclusively as a methodological principle are the positivists. This was, in fact, precisely one of the issues on which Lenin most strongly attacked the positivists, insisting on "the recognition of objective law in nature" as essential to materialism, in opposition to the positivists who called this a dogmatic and transcendental view. (See *Materialism and Empirio-Criticism*, Chapter 3, Section 3.)

In much the same way the view that "existence determines consciousness" and other general materialist views serve, as Sohn-Rethel rightly shows, as methodological principles. But that is not to say that their whole character is that of methodological principles. The principles of dialectics, again, serve as methodological principles; but at the same time there exists objective dialectics.

Anyone who knows the writings of positivists knows that they

invariably accuse materialists of *a priori* dogmatism. But there is no need for Sohn-Rethel to take fright at this and, in his anxiety "to hold his own in a controversy with modernist critics," to concede everything to the positivists by assuring them that all we are actually doing is just to advance and use a certain methodology.

Sohn-Rethel joins with the positivists in saying that general propositions about "mind" and "matter" and "being" and "thinking" are "metaphysical." He further says that to assert "the existence of the external material world independent of consciousness" is a "mythological invocation." Lenin said: "The fundamental premise of materialism is the recognition of the external world, of the existence of things outside and independent of the mind" (*Selected Works*, Vol. 11, p. 148). Engels said that materialism "primarily signifies" that nature is prior to spirit (*Ludwig Feuerbach*, Chapter 2). Perhaps Sohn-Rethel is right in saying they were guilty of metaphysics and mythology. But right or wrong, one thing is clear, and that is that he cannot claim the authority of Marxism for this positivistic criticism of Marxist views.

Yet what grounds has he got for saying that it is metaphysical, for instance, to speak about "matter," or that statements about the existence of the external world can only be pronounced "on the sovereign authority of abstract reason"? No grounds at all, that I can see. These statements about matter, mind, the external world, and so on, which he objects to, are in reality not dogmas but are all fully borne out by the whole of science and experience. In this part of his communication, he merely repeats the stock-in-trade of positivism, long ago shown up by Lenin.

Where I think Sohn-Rethel has gone astray is in his failure to see how a methodology and a world view are inseparable and integrally connected. The value of the materialist world view of Marxism, of its affirmation of the independent existence of the external world, of the priority of nature over spirit, and so on, is to be seen in the methodology which this view carries with it. It is not put forward as an abstract dogma. But on the other hand, the practical success of the methodology is what verifies the correctness of the general materialist world view.

MAURICE CORNFORTH.

ON COLONIAL INDUSTRIALISATION

BY RICHARD H. PEAR

IT is because we have a professedly Socialist government and a Secretary of State for Colonies with great knowledge of colonial affairs that the communication of S. and K. Aaronovitch (*Modern Quarterly*, Summer, 1947), is particularly opportune. Readers of this journal are indebted to their penetrating analysis of colonial planning for the highlighting of deficiencies in those plans.

Whether or not the Colonial Office can be said to have a policy for colonial progress, it undoubtedly has a collection of ideas looking to the economic development and welfare of various colonial territories, and Socialists must seriously examine all plans to ensure that that which might become a great opportunity for the African peoples (e.g. the groundnuts scheme) does not, through apathy or bad faith, become merely another branch of Unilevers.

There are two aspects of their article which I feel should be further examined: (a) Their specific criticisms of colonial development schemes and (b) their theory of colonial industrialisation. These are indissolubly connected in their thought, the former stemming from the latter.

Before entering on this discussion let us be clear how important is their opening assertion that they (p. 257) "are not here concerned with those colonies like India, Burma, Ceylon, etc., for which the immediate question is independence. . . . Our main concern is with the African and West Indian colonies where the national movements have not developed to the point where independence is the immediate decisive question." The recognition of the luxuriant variety of conditions in the Colonial Empire as a whole is an indispensable guide to action and to fruitful criticism of colonial plans. I trust I am not unduly stretching or distorting their thoughts by the suggestion that this assertion implies (1) that the *immediate* question in some colonies is economic development, welfare and education and (2) that in *some* colonies there may be, as yet, precious little articulate native political aspiration with which Socialist planners can co-operate. Put somewhat harshly, Development Boards and Committees should co-operate with (p. 262) "the young but vigorous trade union and national movements"—if such exist! If they do not yet exist the planners must develop economic and educational conditions under which they can arise. Truly (p. 262) "Labour needs a new approach to capital investment in the colonies," but can we, as they suggest, "reject those who say that the colonies need 'bread not democracy' "? If this slogan is properly to be appreciated, is it not suggesting that in some colonies bread is needed before democracy? And is not this the same point the authors themselves make when they say that there are areas where independence is not the "immediate decisive question"?

We all know that what the colonies need is "bread and democracy," but they themselves have supported the point that in some areas bread must be provided first.

To turn to more particular matters. Capital investment has maintained (p. 258) "the agrarian, backward structure of the colonies" and has not tended towards colonial industrialisation. There is little dispute about the facts, but there is perhaps a suggestion that agrarianism is necessarily synonymous with backwardness, and it is here that we see the germ of their general idea that industrialisation is the key to raised living standards. This point will be considered later. Suffice it to say here that there is nothing "backward" about being directly dependent on agriculture for a livelihood—provided agriculture gives a livelihood acceptable to modern standards.

Secondly, I suggest that capital investment, although it has not led to a general condition of "colonial industrialisation" (p. 258), has led to some industrialisation if only in the provision of railways and their satellite workshops. This does not constitute industrialisation in the Aaronovitchs' view (it is a matter of definition, perhaps), but this capital investment has provided, in a transportation system, an important base on which industry could be built. They point out (p. 257), that three-quarters of government investment (government investment representing 71.66 per cent. of all capital invested in East Africa), has been spent on railways. As writers having knowledge of Kenya they will recognise that high though this percentage is, it has done no more than lay the foundations of the transport and communications which Kenya needs to-day or to-morrow. The Kenya-Uganda Railway prides itself on being the only railway in the world that provides bottle-openers in the lavatories for thirsty (white) travellers, but the war has shown its woeful inadequacy as a shifter of personnel and freight. If East Africa is to become a great food producer (and, as the authors rightly suggest, a food processor), a great deal more capital will have to be put into the Kenya-Uganda Railways and Harbours, and into Kenya's appalling roads too. Whether or not it is correct rigidly to exclude expenditure on "communications" from the category of industrial development expenditure, the 14 per cent. to be spent on them in Kenya's 10-year plan is vitally necessary to the moving of agricultural or industrial products (p. 260). Roads, bridges and telegraph wires must be maintained if production, under whatever auspices, is to be expedited.

Their article presents an argument which should and can (with honesty) be avoided; namely that (p. 258) "capital investment did not serve to raise the living standards of colonial peoples." It is an argument which cannot be proved statistically (any other proofs are interesting but irrelevant), because the necessary data for diets, incomes, property holdings of natives in pre-capitalist times do not exist. It should be

avoided because it invites all the Empire Day speeches pointing with pride to hospitals, social services, schools, even colleges, which physically do exist and which have been built by capitalism in some colonial territories. It should be avoided because of the indisputable fact that some natives do now buy articles (which would figure in any standard of living index) such as clothes, shoes, bicycles, cigarettes and amusements which they could not buy fifty years ago. It is an argument with which one can legitimately refuse to involve oneself, because it is not on the decline or stagnation of colonial life that anti-imperialist thinking is based. Such thinking is based on an appraisal of the world-wide effect of competing imperialisms, on the threat to home employment and living standards continually present in the conditions of economic and political defencelessness represented by colonial proletarians with few political rights and miserable wages; on the solidarity of all workers, and on the social consciousness of all democrats who refuse to tolerate ruthless exploitation of human beings, whatever the state of the exploited human beings before the arrival of the exploiters.

Why is colonial industrialisation necessary? It is suggested (pp. 258-9) that it is necessary (a) because this means mechanisation and greater productivity per head, (b) it provides agricultural equipment and utilisation of by-products, and relieves pressure on the land (but why, with mechanisation, scientific cultivation, co-operative farming and the vast continent of Africa, should there ever be pressure on the land?); (c) it is the prerequisite of real political independence; it is a source of necessary economic and military strength; it softens the blow of world capitalist depressions; (d) it leads to the expansion of the internal market and the building up of a balanced economy.

Certain qualifications come to mind with regard to their four points. Firstly, mechanised farming is desirable, but can be achieved without a general programme of colonial industrialisation. Tractors, bulldozers and trucks must be made available to the colonial areas. They do not necessarily have to be built in the colonies, where as a result of past imperial policies, there is an appalling dearth of skilled labour, no plant, and probably (at this moment) none of the essential raw materials. If the tractors cannot be supplied by industrialised countries, then a colonial automotive industry is a necessity. There seems to be some uncertainty however on this point because (p. 263) the authors affirm that "the contribution which British industry can make to colonial re-equipment is greater than most imagine." It is, and as I shall suggest later, there is not such a good case for colonial industrialisation as the authors believe. None of this should be taken as implying that the level of native skills should be left in its present low state. Drivers, mechanics, fitters are needed in large numbers, but the manufacturing of automobiles is a different matter.

There can be little disagreement with their second point, especially where the colonies will derive benefit from such secondary industry. Nevertheless, this point involves their general theory of colonial industrialisation which will be dealt with later.

It is the third point which presents most difficulty. The military aspect will be considered at another stage—but one must say here that the European country with the highest pre-war standard of living—Denmark—was an agricultural country and was really independent. (Industry would not have saved it from Hitler; Belgium and France went down too.) Denmark's high living standards were the result of (a) a fairly assured market for her products (the which could be provided by a planned Britain for colonial output) and (b) a highly developed co-operative farming and market organisation.

Fourthly, the importance of a balanced economy and the undesirability of one-crop economies is clear, *a fortiori*, if one assumes a continuing chaos in world prices.

The authors rightly give pride of place in their discussion to the groundnuts scheme. This is undeniably correct in view of eulogies which have accompanied the scheme. The scheme is not altruistic. It is designed for the immediate benefit of the United Kingdom consumer, and while it does nothing to worsen the position of the African, the good he may get out of it depends on the vigilance of Socialists at home insisting that the scheme eventually becomes the property of African co-operators. This is the avowed aim of the British government and we must see that there is no back-sliding at home and no spanner-throwing by the colonial governments concerned. Meanwhile it is an opportunity for Africans to gain vital experience as drivers, mechanics, clerks, foremen and cultivators. They are to be trained on the job, rather than waiting for training in technical schools (which do not yet exist) and then sent out to run a vast enterprise on their own. The United Africa Company are only Mr. Strachey's agents in all this. If he, or we, forget this, no doubt the practice will fall far short of the theory. The facts may be unpleasant for Socialists, but meanwhile the British people are short of fats and raw materials—and the land, labour, tractors—and the U.A.C.—are available. We should not be afraid to try out this scheme.

The scheme does not even touch the agrarian problem in East Africa. This is the authors' first criticism and it is highly pertinent. This agrarian problem, in a large degree, is concerned with the "excessive" number of cattle (all very small and with poor milk yield) kept by Africans. The number is "excessive" in relation to the present area of good grazing. There is in this cattle problem a nice example of the contradictions of imperialism. White-owned cattle were endangered by diseases transmitted from native cattle. As such diseases know no colour bar, steps had to be taken to stamp out the menaces amongst *all* cattle; (42·8 per

cent. of Kenya's 10-year plan outlay (p. 260) is scheduled for agricultural and veterinary services connected with this work); as a consequence the health of all cattle improves, less cattle die with the resultant "problems of the overcrowded and eroded reserves in Kenya." One solution is fewer cattle of vastly better weights and milk yields, but to most Africans it is still the quantity rather than the quality of cattle owned which is the sign of wealth and prestige. It is often difficult with the very best of intentions speedily to change such traditional habits. (The Masai tribe, for example, in southern Kenya, own hundreds of thousands of head of cattle. They need to, for a staple of their diet is the blood from the cow's jugular mixed with its curdled milk. The cow does not die but lives on and can be tapped again some weeks later. If the Masai could be persuaded that this an uneconomical way of using his beast there would be much less erosion in his reserve.) The groundnuts scheme only grows groundnuts. It does not touch larger problems of traditional and backward crop or cattle-raising.

Secondly, they say, the scheme will exaggerate the one-sided economy of East Africa, i.e. it will re-inforce the primacy of agriculture in the region. Surely this is an unwise measure only if at some future date there is no market for groundnuts and as a consequence the territory is unable to import the necessary consumer and capital goods? In the short run, the scheme adds an important new crop to those already being grown.

Thirdly, under the scheme, processing is to take place in Britain. If facilities for processing exist in East Africa it should be done there, but the article does not examine this problem.

Fourthly, it is stated, (a) the plan gives no base for capital accumulation by Africans, and (b) African contractors are excluded from construction work. A discussion of capital accumulation would take us into a long exercise on the theory of the transition to Socialism, but perhaps it is worth suggesting that Soviet experience indicates that capitalism does not have to run a full span before it can be succeeded by Socialism and collective farming. The second point is one of fact. Contractors in these territories are either British or Indian capitalists. British companies pay their dividends outside the territory and a large proportion of Indian capitalists' profits go back to India. There are no African contractors.

There is the objection to plantation agriculture (pp. 261-2). If such a system brings to mind Scarlett O'Hara and the Old South it is of course undesirable. On the other hand, plantation agriculture, i.e. cultivation in large land units with centralised administration, hospital services, organised selling of products and buying of supplies is only to be condemned if whites tyrannise over blacks. There is nothing wrong with this *type* of agricultural organisation. Run by an African

co-operative administration or an African Public Corporation it would be vastly more productive than production on numerous privately-owned plots.

Vastly more important than their detailed criticisms of the groundnuts plan is the Aaronovitchs' theory of colonial industrialisation. They state (p. 263), "Britain must encourage genuine industrial development" and the explanation follows that "genuine industrialisation" is not present without a capital goods industry. It is this concept of a capital goods industry with which I disagree. If raw materials, communications, markets, skill and capital are all conveniently available, of course, some industrialisation should take place. But a capital goods industry in each region is highly unrealistic. What we want is fair and free exchange of goods and services between socialist commonwealths. Heavy capital goods should come from Britain, South Africa, France, Russia, wherever they can be most economically produced, and they should be exchanged for the special products of the colonial world. Let us avoid distorting what can be a healthy and prosperous colonial economy by ill-considered admiration for industrialism. Groundnuts could, no doubt, with the help of modern science, be grown at Greenock and great marine engines built, at much expense and trouble, at Mombasa. But why indulge in such Schachtian autarchy? Greenock wants fats and Mombasa marine engines, and even though the orthodox economists say it, there is a solid case for the exchange of goods. Because agricultural production has in the past been associated with poor living standards, political and cultural backwardness, there is no case for trying to develop each colony into an imitation of the U.K., the U.S.A., or the U.S.S.R. Nor, in the past, has industrialisation on Clydeside prevented poor living standards for Scots shipbuilders. The fallacy of orthodox international trade theory lies not in the theory *per se* which makes sense, i.e. that those things which can be most economically produced in country A should be exchanged for those which can be more economically produced in country B than in country A (or in region B or region A). It lies in the facile assumption that the individual trader can freely wander over the face of the earth with his bag of products and freely bargain with sellers of other products. It ignores, in fact, the phenomenon of modern imperialism in which rival capitalist states, based on great economic monopolies, negotiate, plot and scheme and finally slaughter each other for the lion's share of the world's wealth.

Planned socialist economies can co-operate to mutual advantage as unplanned capitalisms never can. Let us work towards a future in which the present-day colonies will play their part in such a mutually helpful exchange of goods. For such a future colonial agriculture must be mechanised and co-operative industries should be established where there is a clear case, in terms of welfare, that such will raise the standard

of life of a community which is co-operating economically with other planned communities.

To suggest that a prime reason for colonial industrialisation is the building up of an economic and military strength with which no independent country can dispense, is to imply that freedom and independence cannot be retained without a sizeable colonial armaments industry. If the dissolution of British Imperialism would result mainly in the creation of colonial armaments industries and the possible development of aggressive colonial bourgeois nationalisms, it would be the duty of Socialists seriously to reconsider the character of such a dissolution. We criticise the tremendous wastage of British wealth and manpower necessitated by the Truman-Bevin policy not only (but mainly) because of the politics of that policy, but also because it is by no means proved that in this atomic age vast numbers of men in uniform, tanks on the ground and planes in the air will be of any use in conditions of a future war. Bases, installations, camps, forts, docks, harbours, canals, zones and spheres of interest belong to the military thinking of an age that has passed.

Education is a crying need of the colonial peoples. Let us assist their education in every way, but they have no need for discredited military theories.

The stranglehold of foreign capitalist monopoly must assuredly be broken, but the alternative is not an artificial, forced growth of colonial industry because of too rigid an adherence to a political theory which *in general* has correctly explained the rise of independent sovereign states. In the particular there must be much adaptation—general propositions cannot decide specific cases.

Capital goods industries and military strength may ill serve the future of colonial peoples. To-day the people of this country want margarine, the colonies want tractors, not tanks. Let them grow the groundnuts and we will grind the valves, and then let exchange take place.

It is perhaps inappropriate to forward such Marshallian opinions in a journal devoted to Marxian analysis, but it is only under conditions of planned socialist economies that some of the more beautiful *laissez faire* fairy tales become realities.

* * *

MR. PEAR raises a great many interesting and important points to which we hope to give a full reply later. His attempt to exchange Marx for Marshall is at least premature. He says, in effect, that the colonies should remain the cowsheds of the world. His argument leads to an acceptance of the existing balance of world economic forces. Even the

Charter of the International Trade Organisation is more progressive than this! Mr. Pear supports plantations, makes soil erosion appear as the product of the uneconomical use of cattle and, in general, abstracts these problems from the social framework in which they occur. By mistakenly identifying "immediate independence" with "democracy" he obscures the fact that the fight for increased democracy is a burning, immediate issue in all British colonies and that this fight is intimately linked with their fight for economic development. Nevertheless, his article puts points that need very careful attention and further elaboration: in particular, as to the kind of relationship with the colonies which is desirable for a Britain planned in the interests of the people and the implications of this for the economic and political development of the colonies themselves.

S. and K. AARONOVITCH.

ON SOVIET GENETICS

MAY I add another footnote to the papers on Soviet genetics? It appears to me that the support unquestionably given to Lysenko had a social rather than a scientific motive behind it. The distinction is not permanently valid; but temporarily it may be so for a State which is prepared to forgo immediate results in the eyes of the external world for the sake of the long-term benefits. Lysenko is the son of a peasant, a product of the new civilising forces. One may deduce from reports of interviews with him, that his own origins dominate his mind and give it its peculiar flavour of fanaticism. But that is an unfortunate by-product. More significant is the fact that Lysenko seems to have a large following among the collective farmers, themselves the eager sons of peasants feeling into the possibilities that life now offers them. It is in the collective farms that the State would gladly see, in the next generation, the maturing of a hundred Michurins and Vavilovs.

The chosen catalyst in this process of calling out the latent genius of the farms is Lysenko himself. He preaches not merely a somewhat perverse set of scientific theories, but the ability of the Soviet farmer to become a scientist. He demonstrates it in his person; and his practical work on vernalization and potato culture is widely known and followed in the U.S.S.R.

Lysenko, in brief, is a sociological and not a biological function in Soviet life. His scientific meaning must in my view, be assessed by those who remember that the Soviet State is the scientific midwife of a new civilisation. Now that the task Lysenko was called upon to perform is nearing its completion, his importance seems likely to diminish. The genius of the farms will have been slowly revealed and will be ready to merge with the traditional forms of science, that all evidence shows to be still vigorous in the U.S.S.R.

This way of looking at the event is not always comprehensible in the West, where the process of social change is not realised as a matter of applied science. But once this realisation comes, there should be no excuse for misunderstanding the Soviet intentions. As for the story of Vavilov's death, I have been able to find no proof that attaches prime responsibility to Lysenko. Yet Lysenko is a fanatic in his way; and the human mind at times permits situations to arise, where its own responsibility is scarcely clear to it. What I do know is that tales are being repeated by British and American scientists, into the source of which they never seem to inquire; and if Lysenko is in any sense guilty, they too are denying the basic law of science, which demands that theories shall be based on verified evidence.

F. LE GROS CLARK.

THE contributions to *The Modern Quarterly* upon the subject of Soviet genetics raise a problem which British scientists will sooner or later have to face—namely, to what extent can Marxism be applied to the solution of problems of scientific research. In Britain the application of Marxism in the field of economics and politics is well known, but its application in the field of scientific research may be said to have hardly yet commenced. This is not surprising in view of the strong empirical tendency manifest in British scientific work since the time of Bacon, and which was criticised by Engels many years ago. Many British scientists who are more or less in agreement with the principles of Marxism still hesitate to apply it in the field of science in which they are interested. They still retain the old empirical method of approach which is well expressed by Mr. R. G. Davies as follows:

“If a new experience conforms to the past ones on which our generalisation is based, then so much the better; the generalisation becomes more probable and constitutes a more effective implement in suggesting fresh hypotheses for whose verification further experience is required. If a new experience fails to conform to our generalisation then (assuming we are not subject to an illusion) so much the worse for the generalisation.”

In my opinion this assertion of the primacy of empirical experience is incorrect since it regards the experience as isolated from the material conditions which gave it birth. It also, in my view, may not take sufficient account of the relationship existing between the experience and nature as a single whole. If, however, Marxism is correctly adjusted to scientific practice and not subordinated to the role of a “useful implement in suggesting fresh hypotheses,” the planning of an organisation of scientific research in this country may be raised to a higher level of efficiency than is possible under the existing empirical method of procedure. Although an objective opinion about the genetical controversy in the Soviet Union is difficult to obtain, since Soviet scientific work of major importance is difficult to obtain in this country, and translations are often prepared by people with little knowledge either of Marxism or science, yet it does emphasise the very great care which will be required for the successful application of Marxist theory to scientific practice. A more thorough Marxist education of the scientist and the emergence of successful application of Marxist theory to scientific practice. A vast increase in the Marxist education of the scientist and the emergence of a new type of leader of scientific research able to apply a correct Marxist interpretation to scientific phenomena are obvious requisites in this respect.

With regard to the general controversy of Mendelism versus Lamarckism, a Marxist should not dispute the hereditary theories based on

Mendelism where these are applied to the field of inheritance covered by adequate experimental data which substantiates them. He would however disagree that these theories are universally applicable to all forms of inheritance irrespective of the conditions in which they take place. His disagreement is based on the belief that Mendelism, particularly in its classical form, attempts to explain in mechanical or chemical terms a phenomenon intimately associated with a form of material organisation (life) which cannot be completely assessed in terms of these entities. We have seen that attempts by 19th century chemists to explain all chemical phenomena in terms of the simple quantitative relationships existing between the chemical properties of the materials present in their laboratories (Dalton's atomic theory) was refuted when advances in chemical and physical technique led to the emergence of phenomena (isotopes, isobars, atomic disintegration) which were completely at variance with their theoretical deductions. Similarly a Marxist believes that analogous advances in genetical technique may lead to the discovery of forms of inheritance opposite in character to Mendelian heredity, i.e. to the discovery of some form of Lamarckian inheritance. It is therefore in his opinion, the task of genetics to study inheritance in all circumstances in order to ascertain precisely where, when, and how Mendelian inheritance ceases to predominate and other forms emerge. When this is accomplished a new theory explaining the facts of Mendelian and possibly Lamarckian inheritance, and which gives a more complete understanding of the nature of life, and hence of man himself, becomes possible. If however scientists cling to the old empirical method of work many years may elapse before this comes to pass.

HAROLD N. THOMAS.

The Editor of *The Modern Quarterly* will be pleased to receive communications raising issues for discussion or criticising articles which have appeared. Suggestions as to full-length articles are welcome.

We should be glad to receive articles on physical science, economics, æsthetic and literary criticism, ethics and philosophy. All articles published are paid for.

Correspondence should be addressed to the Editor, Dr. John Lewis, 40 Claremont Park, Finchley, London, N.3.

Our Contributors

Maurice Dobb, M.A., Ph.D. University Lecturer in Economics at Cambridge; author of *Studies in the Development of Capitalism* (1946), of *Political Economy and Capitalism* (1937), of *Wages* (1927 and 1946), and of a forthcoming book on *Soviet Economic Development Since 1917*. From 1942-6 was Visiting Lecturer in Russian Economic Studies at the University of London School of Slavonic Studies.

J. S. D. Bacon, M.A., Ph.D. Graduated at Cambridge in 1938. At present is Demonstrator in Biochemistry there. Has done research in several fields, particularly those of nutrition and carbohydrate chemistry. Wrote *The Chemistry of Life* (Thinkers' Library).

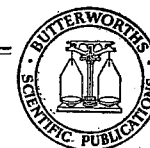
Werner Ilberg is a German who as a result of his writing was put in a concentration camp in 1933. He escaped and went to Czechoslovakia, where he wrote for the German underground newspapers until the Munich crisis, when it became necessary for him to leave. He came to Britain in 1938 and has now returned to Germany. He has made a special study of Romain Rolland. His novel *Red Flag* was published in the U.S.S.R.

Maurice Cornforth, M.A., studied philosophy at London University and Cambridge. Wrote paper in *Proceedings of Aristotelian Society* on "Is Logical Analysis a Useful Method in Philosophy?" His book, *Science versus Idealism*, was published recently.

James Klugmann, B.A., Student and research student, Trinity College, Cambridge, 1931-5. In British Army from 1940 to April, 1945, serving after 1942 with military organisations working in liaison with the Yugoslav Partisans. April, 1945, to July, 1946, Executive Assistant to Chief of U.N.R.R.A. Yugoslav Mission.

Alfred Sohn-Rethel, Ph.D. (Heidelberg). Worked in the political bureau of a large Berlin business concern. Participation in anti-fascist underground struggle led to flight. At present is writing a book on Kant's theory of knowledge from the standpoint of historical materialism.

R. H. Pear, B.Sc.(Econ.). Lecturer in Political Science at London School of Economics. Took a first in Economics and Political Science at L.S.E. in 1938. 1939-41 was Commonwealth Fellow at the University of Chicago. Served in East Africa (Kenya and the Somaliland territories) 1944-6.



RESEARCH

*A Journal of Science
and its Applications*

SCIENTIFIC ADVISORY BOARD

THE RIGHT HON. SIR JOHN ANDERSON, G.C.B., F.R.S., M.P.
(Chairman)

Sir WALLACE AKERS, C.B.E.
*Director of Research, I.C.I., and lately
Director of Atomic Energy Research.*

Sir CHARLES DARWIN,
K.B.E., M.C., F.R.S.
*Director,
National Physical Laboratory.*

Sir ALFRED EGERTON, F.R.S.
*Professor of Chemical Technology,
Imperial College of Science.*

Sir ALEXANDER FLEMING, F.R.S.
*Professor of Bacteriology in the
University of London.*

Professor R. S. HUTTON, D.Sc.
(Secretary)
*Lately Professor of Metallurgy in the
University of Cambridge.*

Sir EDWARD SALISBURY,
C.B.E., F.R.S.
*Director of Royal Botanic Gardens,
Kew.*

Joint Editors: Dr. PAUL ROSBAUD and D. R. REXWORTHY.

Special features of this new monthly Journal include :

1. General articles reviewing in particular fundamental advances and considering practical developments.
2. Surveys on borderline subjects, particularly where, for example, biological observations appear syncretic to the principles of physical chemistry.
3. Reports on the research activities of the laboratories of the Research Associations, official research stations, industrial and academic centres of research, at home and overseas.
4. **A Supplement affording facilities for the publication of carefully selected original research papers.**

Annual Subscription 45s., post free. Full details on request.

BUTTERWORTHS SCIENTIFIC PUBLICATIONS LTD.
BELL YARD :: TEMPLE BAR :: LONDON, W.C.2