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**AUTUMN 1950**

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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 St., London, W.C.1.

Editorial Communications should be sent to the Editor, Dr. John Lewis, 28 Leaside Avenue, Muswell Hill, N.10.

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## *Peace or War?*

BY J. D. BERNAL

THE paramount need of the world to-day is the securing of peace. This can only come by mutual agreement, not by overwhelming force on one side or the other. The tensions of the cold war, which have already led to open fighting in the Far East, will surely lead to another world war unless they are checked by popular pressure. Hence the overwhelming importance in the present critical juncture of the movement of the World Committee of the Defenders of Peace and of their immediate action—the world-wide signing of the Stockholm Appeal against the atom bomb.

By making the Stockholm Appeal for the abolition of the atom bomb the centre of their campaign, the peace forces of the world have taken the initiative from those who are working for war. The original task envisaged by the World Committee of the Defenders of Peace was, in Joliot's words, not to ask for peace, but to impose it. To do so, however, it was not enough to explain and counter every move of those who wanted war. That gave them, and not us, the initiative. The issues were complex, and many people of genuine goodwill and desire for peace were honestly of the belief that such policies as the Atlantic Pact, rearmament at the expense of social services, the war in Malaya and now the Korean conflict were necessary moves in the preservation of the Free World of Western Civilisation by military strength. Consequently, the peace movement appealed only to those whose experience or intelligence enabled them to break through the barrage of "cold war" propaganda, and these were necessarily a small minority in the key countries for war preparation, Britain and the United States.

Now, ever since the announcement of the possession of atomic weapons by the Soviet Union, and especially ever since President Truman's decision to develop the hydrogen bomb, one central fact has begun to overshadow the mind of a really great proportion of the world's population—the fear of atomic war. This can no longer be seen as a push-button war of which distant Russians are the only victims, but one in which no country and no capital is safe. Moreover, the official American reaction to this has been to raise the stakes of destruction and to harden their attitude towards a negotiated settlement just at the moment when it was clear that both sides had everything to lose from a war.

In the popular mind, and rightly, the preparations for atomic warfare had ceased to be merely criminal; they were becoming suicidal! The immediate and spontaneous response of the people in every country in the world to the Stockholm Appeal showed how wide and deep this feeling had already grown to be. The appeal, in its first three months, has become a central issue of world politics. The proof that it is so is shown by the increasingly violent attacks launched against it by governments who support the cold war. The more they do this, however, the more the initiative passes from them to us, for these attacks have not shaken the movement for peace; they have strengthened it.

The people understand because they see things simply and clearly. They recognise the atom bomb for what it is—a pointless spreader of destruction, wounds, disease and death. For them the petition is a gesture—only the first gesture—to tell the world what they do not want and what in time they hope to stop.

With intellectuals it is not so simple; they are hypercritical, politic and, above all, cautious. For many of them the petition is too general and not general enough. They complain of the ineffectiveness of asking governments to do anything so specific and sensible as to negotiate to ban the atom bomb, and often, at the same time, complain that so many other aspects of the war danger, such as bacterial warfare and imperialist oppression, are not also attacked. Fundamentally, such people misunderstand both the key importance of the atom bomb in all plans for a new war and the immense strength of a simultaneous world campaign on one specific issue.

There were wars before the atom bomb; therefore, cry many pacifically-minded people, why not attack war in general and not what is only an aspect of it? They should realise that by the very concentration of world opinion against the atom bomb, the atom bomb becomes more than ever, through the very extent and monstrousness of the destruction it causes, a symbol of the futility and evil of war. The signing of the petition is the greatest protest against war that has ever been raised before in human history. It is at the same time a blow precisely aimed at the very centre of war preparations. The war plans both before and after the knowledge of the possession of the atom bomb by the Soviet Union, all depend on so-called strategic bombing, undeterred by the lessons of its futility in the last war. Vannevar Bush, in his *Modern*

*Arms and Free Men*, speaking for the United States military science, after a very sensible review of the great defensive power of new weapons, suddenly turns round and pins his hopes on a retaliatory striking force, armed with atomic bombs. Without the right to use the atomic bomb, the whole offensive aspect of "Atlantic" strategy becomes nonsense. At the same time the real strength of the Anglo-American bloc, which depends on its economic productive power, would not be affected, and negotiation on the basis of mutual respect, leading to a peaceful co-existence of the economic systems of capitalism and socialism, could proceed free from the threat of sudden destruction by the atom bombs. In view of the enormous extent of the propaganda for the "cold war," especially in the United States, such negotiations would of course be difficult. However difficult they would prove to be with the atom bomb out of the way, they are quite impossible as long as it is there. The effective prohibition of the atom bomb is the first and absolutely necessary condition for any serious move to peace. The technical and political moves to achieve this are bound to be hard to find and agree on. But they are not the core of the problem. Mr. Trygve Lie has shown clearly what they would be in the framework of the United Nations. What is lacking is the will to agree. This is why the empty pretext of excluding the People's Republic of China from the Security Council is used to block negotiation while blaming the Soviet Union for non-participation.

The only thing that can shake that obstinate refusal to discuss is the pressure of the popular will, and this is what the Stockholm Appeal is organising and making vocal. It is difficult to realise in this country, because of the almost complete Press black-out on the activities of the peace movement at home and abroad, the scale and meaning of that expression. We are witnessing a great historic fact, a radically new and hopeful turn in world affairs. For the first time in history in every single country in the world, men, women and children are setting their name or sign on one identical document. It is a portent and foretaste of the united popular world of the future. In the present world it already has power not numbered in millions, but in hundreds of millions. When ultimately more than half of the population of the world have gone on record of their detestation and rejection of modern war it becomes a notice that cannot be ignored. They are saying to those who are trying to make war: "You may kill any number of us, you will never get our voluntary support. In the end all the refinements

of secret weapons of destruction, disease or famine will fail against our general will."

Of a different importance is the attitude of the great countries of the U.S.S.R. and China to the Stockholm Appeal. By enthusiastically supporting it, by official acts and even more by popular individual appeal, they are proving most effectively their will to peace. In doing so they are abjuring for themselves the very real advantages their own possession of atomic weapons could give them. They are openly pinning their faith on negotiation and not on the cold war.

We in this country have been the slowest to answer the call of Stockholm, but this is little indication of the spirit of our people. The great success of the petition wherever it has been presented shows that here, as in every other country, the general will is for peace through negotiation. But this is precisely why the petition campaign is being opposed so violently by those who are set on keeping this country an active participant in the cold war. We have to recognise that the Government, enthusiastically backed by the Conservatives and more and more reluctantly by its own supporters, are committed to this course, and only the largest expression of popular feeling can shake its purpose. The success of the petition is vital to peace and no other considerations should be allowed to stand in its way. The Stockholm meeting brought out most clearly the need and the opportunity to bring in, on this one simple issue, people who differ radically on every other point: those who take one side or the other in the Korean struggle, those who support and those who deplore the war in Malaya, those who think of the U.S. as a probable aggressor and those who fear aggression from the Soviet Union, those who believe in free enterprise, the welfare state or socialism. If those who are working for the petition refuse to be drawn into arguments on all such points while making it quite clear that the main issue is the atom bomb, they will multiply their efforts through the support of many willing workers, and the people will have a chance to hear of the petition and give it their support. We in Britain have a special responsibility. Once our people decide against it, there can be no war. We must see that they have the opportunity to decide.

BY JOHN KENNEDY AND CHARLES MACLEOD

*Introduction*

PRESENT trends in Western science raise a multiplicity of urgent questions: philosophical, technical, social and political. They are all connected, and none can be left on one side. But they are not all equally important. To deal with any effectively they must all be seen against the one overshadowing issue: militarisation.

There has been a great expansion of scientific effort since the nineteen-thirties. During World War II the contribution of science to the national effort was greater than it ever had been before. It was the fond hope and firm intention of scientists and the people at large that, when peace came, scientific effort on a comparable scale would, through new discoveries, technical developments and the use of operational research methods, revolutionise Britain's industrial and agricultural production and so raise the living standards of her people. These hopes were still high in 1948, when the keynote of the Dundee meeting of the British Association was "Swords into Ploughshares."

To-day, although the scale of scientific effort remains far higher than before the war, these hopes lie in ruins. Their ruin, like that of so many hopes for the post-war world, is directly attributable to the fact that British economy, and so British scientific effort, have been subordinated to the economy and "cold war" policy of the U.S.A. For the very next British Association meeting, in Newcastle in 1949, Professor Bernal was ostentatiously not elected to the committee because he had, in Moscow, drawn attention to and protested at the remilitarisation of our science. Not swords into ploughshares, but ploughshares into swords, is the order of the day.

*The Facts*

The figures of government expenditure for scientific research and development provide the simplest and clearest expression of what is happening to science (p. 315). The estimates in this table, col. (f), show that the total 1950-1 expenditure is 14.1 times that of 1936-7, after allowing for price changes: an impressive increase. But how is it made up? Despite five years of peace, the expenditure on military research and development has increased



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33.7 times on pre-war, whereas those on food and health have increased 4.0 and 4.4 times respectively, and estimated expenditure on university research only 2.8 times. Expenditure on food has fallen from 12.2 per cent. of the total in 1937 to 3.5 per cent. in 1951.

The proportion of the total expenditure devoted to Service research has risen from 34.7 per cent. in 1937 to 82.5 per cent. in 1951, although out of the total government expenditure for all purposes the proportion devoted to the Services is now 22.6 per cent. Thus it is in science above all—"the sensitive growing point of civilisation," as Bernal has put it—that the process of militarisation has gone furthest.

Estimates based on various official figures and the Federation of British Industries' "Report on Scientific and Technical Research in British Industry" show that, in 1948, 64 per cent. of those employed in government research and some 20 per cent. of all scientific research workers, were employed in war research.<sup>1</sup> The only field in which the increase in research expenditure comes anywhere near that on war, is the Empire (20.7 times): striking evidence of the current drive for more "scientific" exploitation of the cheap labour and materials available in the colonies. Our expanded scientific effort is not directed mainly inwards, at meeting our urgent industrial, agricultural, housing and allied needs, but outwards, at preparation for war. Where its purpose is not military, it is parasitic.

Expansion in other directions falls short of what was planned but a few years ago. For example, it was planned that the staff of D.S.I.R., which conducts research aimed at solving our industrial problems, should be expanded from 2,750 in 1944 to over 5,000. But in 1948 the department ruefully reported:

"The realised figures for 1948 are 3,090. . . . It is clear that, unless the rate of increase can be improved, it would be many years before the plans could be realised. . . . The situation, therefore, must be faced that for some time to come the department must endeavour to meet the most pressing demand on its services and leave undone many projects which are worthy of attention. . . ."<sup>2</sup>

Militarisation does not mean the mere passive neglect of other lines of scientific development. It means the active extension of

<sup>1</sup> *Scientific Worker*, August, 1948, p. 20.

<sup>2</sup> *D.S.I.R. Report for the years 1937/48*, Cmd. 7,761, H.M.S.O., 1949.

## The Militarisation of Science

the military grip, not only within the government's own research establishments, but even into the sacred precincts of "pure" science. This process has of course gone furthest in the U.S.A. "Western" culture, we are repeatedly told, is a single thing. Certainly, the United States is working hard to make it so, under American leadership, and not least in science and technology. Moreover, the scientific effort of the U.S.A. is now by far the largest in Western science as a whole. Whatever European scientists may think of the quality of much American scientific work, they must surely look across the Atlantic if they wish to know the shape of things to come.

In America, as in Britain, there were high hopes at the end of the war that the contribution of science to victory would be recognised by generous endowment in peace. These hopes crystallised in the project for a National Science Foundation. So far, on the contrary, it is not any such civilian foundation, but the American armed forces and particularly the Navy which have become the main Federal sponsors of research, including fundamental research in universities. In fact, the nearest thing to a University Grants Committee in the U.S.A. is the Office of Naval Research. As to the National Science Foundation project, a report in the April, 1950, number of the *Scientific American* ran as follows:

"The bill to establish a National Science Foundation which had been held in the House of Representatives for nearly two years, began to show signs of emerging last month, but in a form that threatened to result in still-birth.

". . . An amendment sponsored by Representative Howard A. Smith and unanimously accepted by the House . . . said:

"No person shall be employed by the Foundation and no scholarship shall be awarded to any person by the Foundation unless and until the Federal Bureau of Investigation shall have investigated such person. . . ."

"Another amendment required F.B.I. clearance of any foreign citizen associated with the Foundation 'in any way whatsoever.' Another change in the bill which greatly disturbed its proponents was a sharp cut in the proposed funds."

"There seems little doubt," the *Scientific American* quoted the Federation of American Scientists as saying, that the intention of Representative Smith's amendment—

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“is more to kill the bill than to protect security. . . . We have not realised the hope of freeing basic research from security limitations by segregating such research in an exclusive agency.”

The Council of the National Academy of Sciences was quoted<sup>1</sup> as saying:

“We are convinced that this provision, if made into law, would so distort the purpose of the original bill as to work serious damage to the development of science in the United States.”

Thanks to this opposition, Representative Smith’s amendment was dropped from the Bill as finally passed.<sup>2</sup> The cut in the funds, however, remains, and all recipients of Foundation grants must take loyalty oaths:

“Since the Foundation’s work is to be primarily basic and not involved in applied research of a restricted nature, the Congress does not feel that additional security provisions are necessary. The Congress believes, however, that national defence requirements may make it advisable for the Foundation to engage in restricted research such as that sponsored by the Department of Defence or the Atomic Energy Commission. . . . This could involve loyalty investigations by the F.B.I.”<sup>3</sup>

Thus the Foundation will not after all be the free agency for basic research originally envisaged, and no limits are set to further military encroachments. In fact, it was made clear at the beginning that, whatever the working scientists may have had in mind, the Government’s interest in expanding fundamental research through the Foundation or otherwise was in the first place military. “Military importance” is the first reason given in the official report on “Science and Public Policy”<sup>4</sup> for recommending a “rapid extension of scientific knowledge”:

“It is commonly said that another war would be fought with push buttons: that developments in electronics and other areas

<sup>1</sup> *D.S.I.R. Report for the years 1937/48*, Cmd. 7,761, H.M.S.O., 1949.

<sup>2</sup> *Chemical and Engineering News*, Vol. 28, pp. 1729–32, May 22nd, 1950.

<sup>3</sup> *Ibid.*, p. 1,627, May 15th, 1950.

<sup>4</sup> *Science and Public Policy*, Vol. I. *A Programme for the Nation. A Report to the President by John R. Steelman, Chairman, the President’s Scientific Research Board*. August 27th, 1947. U.S. Govt. Printing Office, Washington, D.C.

## The Militarisation of Science

will lead to the development of completely automatic weapons. This is altogether likely. . . . But knowledge precedes push-buttons, and theory precedes its application. A nation which is backward in fundamental scientific knowledge—which falls behind others in the exploration of the unknown—would be severely handicapped in any future war.”

General Eisenhower is now President of Columbia University. He, together with the President of Harvard, Professor Conant, and the General Education Inspector of New York State, were appointed to report to President Truman on America’s educational policy. The assumption from which they started, and repeated many times, was “that the cold war would continue for many years.” This was how they concluded their report:

“If the schools develop programs that contribute to the nation’s needs in this time of crisis . . . then education can command the support it will deserve as an instrument of national policy.”<sup>1</sup>

Thus the whole educational system, scientific and other, is held to justify itself only as war preparation.

In Britain, the universities generally have shown a creditable resistance to military encroachments—refusing, for example, to accept Ph.D. students whose theses must be kept secret. But it is certain that many university scientists who worked in government laboratories during the war have not wholly severed their connections with them; and some departments depend to a very considerable extent on military interest for the maintenance of their research schools. However, in Britain, where things are seldom done as brutally or publicly as they are in America, the most important aspect of militarisation is of the less obvious kind indicated in the Steelman Report quoted above, and before that in the Barlow Report:<sup>2</sup>

“. . . We have no alternative but to strive for that scientific achievement without which our trade will wither, our Colonial Empire will remain undeveloped, and our lives and freedom will be at the mercy of a potential aggressor.”

<sup>1</sup> *In Defence of Peace*, June, 1950.

<sup>2</sup> *Scientific Man-power*. Cmd. 6,424, H.M.S.O., London, 1946.

Thus, while the table shows that non-military government research has been increased (although much less than military and colonial research), and while government investment in university and civil research has also been increased, this is, in great measure, regarded as long-range war research. It is clear that the continuation of such state support for civil research necessarily depends on the continuation of the cold war.

Those who take comfort from the relative immunity, so far, of British academic science from military encroachment, should take note of the answer made by the Permanent Under-Secretary of the Ministry of Supply, Sir Archibald Rowlandson, to questions from the Select Committee on Estimates:<sup>1</sup>

“. . . One of our difficulties in utilising the universities is that university professors and scientists broadly claim that they should be entitled to publish anything that they discover. A great deal of the work which we want them to undertake is so highly secret that we could not allow them to publish it, and that does to some extent cramp our style. It is a point which I am at present discussing with Sir John Lennard-Jones, who is Chairman of our Scientific Advisory Council, and I have been asking him if we could persuade the universities to undertake a little more 'aimed' research. He is hoping to be able to do something in that direction.”

### *Perversion*

The militarisation of science means the open abandonment of the high ideals upon which scientists have been nurtured.

There have always been arguments between the protagonists of “pure” science as a contribution to human culture, and the protagonists of more energetic application of science for the betterment of human life. This argument is now losing all meaning. On the one hand, the country's chief scientific policy-maker, Sir Henry Tizard, has called for more applied rather than fundamental research; while on the other hand the vast organisation for applied science which he heads is 82 per cent. devoted to the destruction of human life.

No one realises better than the scientists themselves what a total

<sup>1</sup> *Select Committee on Estimates (The Defence Estimates Sub-Committee B)*, H.M.S.O., London, 1949.

inversion this means in their work. Theodore Rosebury, the bacteriologist who headed the U.S. Airborne Infection Project at Camp Detrick during the war, put it this way:

“If you want to understand B.W. [biological warfare], you must figuratively stand on your head. B.W. is an upside-down science, an inversion of nature. Normally we study disease in order to prevent it or cure it. This is bacteriology right side up. But B.W. sets out to produce disease. It is not normal or natural, but abnormal and artificial.”<sup>1</sup>

After the atom bomb was first dropped, the constructive applications of atomic energy was the main theme of public discussion, with the prospect held out of unlimited power within a reasonable time. We know that in the Soviet Union such application has already begun. But in the U.S.A. the development has been in precisely the opposite direction, as was already apparent in 1948:

“The publicity still goes to the civilian application of atomic energy—actual or potential. But the fact is that around 80% of A.E.C.'s money and effort is directly aimed at maintaining and increasing the production of bombs.

“This concentration on weaponising inevitably has a retarding effect on civilian applications. The most immediate application—production and distribution of radio isotopes—doesn't compete seriously for material or engineering talent. That's why it has been able to forge ahead rapidly.

“But application of the atom's power to non-destructive uses does definitely compete for both material and talent. The result is that the work in this field has had to be laid out on a rather slow schedule that puts economically significant power utilisation a generation away. . . . A.E.C.'s industrial contractors are being discouraged from putting too much effort into power.”<sup>2</sup>

The long-promised experimental plant to study the industrial use of atomic energy (costing \$25 million—that is, 3 per cent. of the total American expenditure on atomic energy) was to be started in Schenectady, New York, in the early part of 1950. However—

<sup>1</sup> *Peace or Pestilence*, New York, 1949.

<sup>2</sup> *Bulletin of the Atomic Scientists*, July, 1948, p. 213.

"Less than three months later [after the money was voted], on March 29th, the U.S. Atomic Energy Commission announced that the building of the Schenectady plant by General Electric would be postponed indefinitely in order to permit greater concentration on the development of the hydrogen bomb."<sup>1</sup>

Yet the French atomic energy project, which no one could pretend would be a significant addition to the American effort if diverted to military purposes, has just been dealt an irreparable blow by the dismissal of Joliot-Curie, because he reaffirmed categorically the original intention to develop it for strictly peaceful purposes only.

The ideal of science as a "supra-national" activity, a part of world culture, a field of free enquiry and a forum of free discussion, has fared no better than the ideal of science for human progress. People who extol the "supra-national" character of Western science appear not to have noticed that free enquiry and free discussion are being closed down over whole fields of that science, on security grounds, because of their actual or potential value for anti-Soviet war. Furthermore, science, once cherished as the most international aspect of culture, has now been converted, through the sensationalising of security "leaks," into one of the main instruments for national panic-mongering and the destruction of civil liberty.

And there are scientists who contribute willingly to this degradation of science. Biologists and others are given time on the air and space in the popular Press, where, fortified by their monumental misunderstanding of the scientific issues, they present Soviet science as a lost cause and its leaders as a menace to world science. That this is no mere matter of misunderstanding, but has a definite political motive, was clearly revealed in the case of Professor Ralph Spitzer of Oregon University, who was dismissed from his post for suggesting that Lysenko should at least be read.<sup>2</sup>

Some scientific spokesmen, such as *Nature*<sup>3</sup> here and the *Journal of Heredity*<sup>4</sup> in America, have coupled security restrictions in Western science with the recent changes in Soviet science as equally damaging to science. But their opposition to the first is crippled from the start by their subservient acceptance of the policy of the

<sup>1</sup> M. Rubinstein, *New Times*, 1950, No. 16, p. 17.

<sup>2</sup> *Chemical and Engineering News*, January, 1949.

<sup>3</sup> *Nature*, Vol. 165, p. 290, 1950.

<sup>4</sup> *Journal of Heredity*, Vol. 39, p. 22, 1948.

cold war, while their opposition to the second is directly fed by that policy, and feeds it in turn. Huxley,<sup>1</sup> for example, clearly believes that it is the Russians who have dealt the main blow to scientific internationalism in recent years.

One wonders whether he has troubled to look at the evidence marshalled by Professor Blackett for his conclusion that—

"the dropping of the atomic bombs was not so much the last military act of the second world war, as the first act of the cold diplomatic war with Russia now in progress."<sup>2</sup>

It was, therefore, at the same time, the supreme act of betrayal of free and "supra-national" science, in so far as these actually existed, ushering in the era of security-secrecy-witch-hunting hysteria worked up over the atom bomb.

The welcome given to and the reports of those British scientists who attended the two hundred and twentieth anniversary session of the Soviet Academy of Sciences in 1945<sup>3</sup> are sufficient evidence of the sincere Soviet desire for international co-operation at that time. If now there is a campaign against "cosmopolitanism" in Soviet science, this is clearly aimed not at internationalism in the healthy, traditional sense, but rather at those who ignore, in the *name* of such internationalism, the social and theoretical perversions of modern Western science to which we are drawing attention in this article.

The theoretical and practical conclusions of the 1948 meeting of the Lenin Academy of Agricultural Sciences<sup>4</sup> were reached after the most thorough and public discussion of a scientific issue since the great debate on Darwinism in the last century, which a worthier Huxley helped to a triumphant conclusion. Indeed, the 1948 decisions were reached far more democratically, and the whole world can, if it will, learn the details of the case. But in Britain, "there is a . . . serious obstacle to parliamentary and public scrutiny," as *Nature*<sup>5</sup> has written, of policy in our largest field of scientific research and development, for that is military, and the important details of expenditure are secret "for reasons of security." Yet, *Nature* went on—

<sup>1</sup> *Soviet Genetics and World Science*, London, 1949.

<sup>2</sup> *The Military and Political Consequences of Atomic Energy*, London, 1948, p. 127.

<sup>3</sup> *Nature*, Vol. 155, pp. 691, 1945; Vol. 156, pp. 215, 221-8, 254-9, 282-5, 1945.

<sup>4</sup> *The Situation in Biological Science* (Moscow, 1949).

<sup>5</sup> *Nature*, Vol. 165, p. 538, 1950.

“our only chance of preventing the mounting cost of military research and development from disrupting our whole economy, and diverting scientific and technical effort from the fields in which it is so imperatively needed for our economic recovery, is to eliminate the expenditure of money and effort on Service projects that have become irrelevant.”<sup>1</sup>

We may leave *Nature* wondering how that is to be done, and merely note that, even were the Soviet kettle as black as Huxley paints it, his remarks would have a singularly pot-like ring.

Academician Lysenko himself has said:

“... Unfortunately there exist scientists who have given both their minds and their science to the atomic cannibals. What do such scientists intend giving humanity? What are they preparing for the worker who ploughs the earth, the student bent over his books, the mother, and her child asleep in the cradle? Death.”<sup>2</sup>

Propaganda? Exaggeration? Listen to Dr. Leo Szilard of the University of Chicago taking part in a Round Table Broadcast on February 26th, 1950:<sup>3</sup>

“I have made a calculation. . . . How many neutrons or how much heavy hydrogen do we have to detonate to kill everybody on earth by this particular method? I come up with about 50 tons of neutrons as being plenty to kill everybody, which means about 500 tons of heavy hydrogen.”

Or to this:

“We can dispose of the ‘morality’ argument at once. Once it has been decided that people are to be killed, the ‘moral’ question is fully settled; the instruments of killing are not at all affected with humane or moral questions.”<sup>4</sup>

Thus one of the worst effects of the militarisation of science is that it negates the whole tradition of science and inevitably demoralises not only the scientists doing military research, but also

<sup>1</sup> *Nature*, Vol. 165, p. 539.

<sup>2</sup> *In Defence of Peace*, June, 1950, p. 24.

<sup>3</sup> *Bulletin of the Atomic Scientists*, April, 1950.

<sup>4</sup> Louis N. Ridenauer, *Scientific American*, March, 1950, Vol. 183, No. 3.

the general body of scientists who, taking all these things as a matter of course, are losing all sense of social responsibility and scientific morals. Science perverted in this way can offer scientists work, but they should be under no illusions as to the future. There is no future along these lines. Such a science depends for its very existence on the expectation of another war.

*Stultification*

The productivity of the nation's scientific man-power becomes drastically reduced when a majority are working in state laboratories. Many of the best scientists now outside such laboratories went into them during the war, and found it possible to do useful work in spite of the bureaucratic and anti-scientific atmosphere inevitable in the administration of a capitalist state undertaking. When the end of the war removed the driving force of the progressive aim of defeating fascism, this atmosphere became intolerable, and most of the good scientists got out as fast as they could. Those who lingered on, hoping the capitalist state would be seen to utilise their services for peace as it had been for war, have one by one become disillusioned and drifted out in turn. According to a recent review in *Nature*<sup>1</sup> of an address by the prominent Australian scientist, Dr. I. W. Wark, he—

“says frankly that frustration arising from regulations that are useful in other types of work have ruined completely the morale of half the government laboratories of the world.”

Frustrating though bureaucracy is, the ruination of such work at present comes more from the fact that the only war for which military research is now preparing is a reactionary one against the Soviet Union, which arouses no enthusiasm. Hence the secrecy surrounding the work, accepted as a necessary expedient in the last war, becomes negative and stifling in peace:

“Our progress in atomic research since the end of the war has not been commensurate with wartime progress in any sense . . . most of the prominent men as well as many of the brilliant younger men have left the projects to return to university work.”

<sup>1</sup> *Nature*, Vol. 156, p. 271, 1950.

Professor H. C. Urey has stated,<sup>1</sup> and he gives as the principal reasons "secrecy and loyalty checks."

A special committee appointed by the Council of the American Association of Atomic Scientists reported that "Secrecy is damaging to both science and democracy." The committee testified, as did the British Atomic Scientists' Association a little later, "to the unwarranted spread of secrecy," and warned "that any security gained by general secrecy of fundamental data would be rapidly outweighed by the diminished vigour of research."<sup>2</sup>

*Nature*<sup>3</sup> commented:

"The failure to confine the Loyalty Order to matters of objective proof has engendered a feeling of insecurity in public employment, and may be expected to lessen the vigorous intellectual independence which is a prime condition of scientific work as it is of an imaginative Civil Service."

The damage cannot be confined to workers on direct military projects.

"Military clearance may affect literally millions of employees of private industry engaged in the production of articles for military use. . . . The Atomic Energy Commission has recently manifested a tendency to require security clearance not only for those scientists who themselves have access to restricted data but also for their fellow scientists with whom they may have personal contact. . . . Scientists are increasingly reluctant to commit their personal and professional reputations to those who have brought frivolous charges against respected colleagues."<sup>4</sup>

Last August, Congress decided that all research fellows supported by the Atomic Energy Commission must undergo a loyalty check, and "it is well known," writes *Nature*,<sup>5</sup> that—

"with the passing by Congress of the provision in question, there was a marked falling off in the quality of applicants for fellowships. In Australia too, Dr. I. W. Wark has expressed concern

<sup>1</sup> *Bulletin of the Atomic Scientists*, October, 1949.

<sup>2</sup> *Nature*, Vol. 165, p. 290, 1950; Vol. 165, p. 658, 1950.

<sup>3</sup> *Nature*, Vol. 165, p. 291, 1950.

<sup>4</sup> *Science*, Vol. 110, p. 177, 1950.

<sup>5</sup> *Nature*, Vol. 165, p. 290, 1950.

that acceptance by the universities of contracts for secret research may endanger their independence; while others besides Sir David Rivett are concerned lest the new status of the Commonwealth Scientific and Industrial Research Organisation should prove detrimental to the establishment of the atmosphere in which scientific research flourishes."

As a result of the U.S. National Research Council's refusal to administer A.E.C. non-secret fellowships, if made conditional upon "loyalty" investigation of applicants, the A.E.C. has now severely cut its expenditure on such fellowships. So much for military interest in the progress of basic research.

The staff of the University of California have just fought a losing battle against the demand of their Board of Regents that every member should sign a special non-Communist oath, in addition to the standard State oath of allegiance to the Constitution.<sup>1</sup> The faculty resisted with the support of the forty-three other universities and colleges in the Western College Association, but were in the end forced to accept a bad compromise.

Thus from the requirement of political reliability among scientists engaged on secret work, it is but a step to the exclusion of politically "unreliable" persons from all scientific research and teaching. Before long, no scientist who is not an unquestioning supporter of the cold war will be able to obtain employment.

Science outside government establishments is affected not only by the spread of loyalty investigations, but also by the practice of the U.S. Navy already referred to, for example, of subsidising fundamental work as such in any field, however remote from immediate naval requirements. The recipients of such grants are given clearly to understand that should anything of possible military value turn up in their work, it must then pass behind the secrecy curtain. Thus no branch of science is free of the risk of having its development arrested and distorted in the interests of war preparation.

Even already-established facts begin to be potentially dangerous and therefore secret, since, as Sir Robert Watson Watt has said, the size of the earth is a secret because it is necessary to know this for the proper aiming of long-range rockets, and on the same grounds the position of the stars might become secret. "In biology, every aspect of physiology and medicine might be turned into

<sup>1</sup> *New Republic*, April 24th, 1950.

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account for new forms of chemical or bacteriological warfare.”<sup>1</sup>

These are by no means fantastic suggestions: witness the case cited by Hanson W. Baldwin, the famous military correspondent of the *New York Times*:

“Among the latest manifestations of the secrecy craze . . . was the recent seizure and burning by order of the Atomic Energy Commission of 3,000 copies of the magazine *Scientific American* and of galley proofs of certain parts of an article by Dr. Hans A. Bethe of Cornell University, one of the nation’s leading atomic physicists. The article appears in the April issue of the *Scientific American* in censored form as the second of a series on the hydrogen bomb.

“The material that was deleted and destroyed was part of a technical and scientific discussion which seemingly contained no facts that had not previously been published. . . . The magazine agreed to deletion of the material, although its Editor, Gerard Piel, declared that ‘strict compliance with the Commission’s policies would mean that we could not teach physics.’ This somewhat frightening episode was preceded by what amounted to warnings from the Commission to all its employees and project-connected personnel not to discuss ‘technical information’ about the hydrogen bomb even though such information was not classified as secret and even though it had been previously published.”

*Popular Science* suffered similarly when it wished to publish, in May, 1946, photographs of protective devices against radiation to illustrate an article on the applications of atomic energy in medicine. General Groves intervened and forbade their publication. This action evoked a stinging reply from the Editor, who indicated the General’s whole policy as the reason why “There are blank spaces in the record of medical research.”<sup>2</sup>

While there is no doubt that the stultifying process has gone much further in America than in Britain, *Nature* itself gives this warning:

“Hitherto, Great Britain has been comparatively free from the secrecy hysteria, and the revelation of a serious lapse or two in the

<sup>1</sup> J. D. Bernal, *Science for Peace and Socialism*, Birch Books, 1949, p. 34.

<sup>2</sup> *New Times*, No. 19, p. 15, 1946.

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administration of the security system has not greatly alarmed the public mind. There is danger, however, in complacency no less than in hysteria. . . .”<sup>1</sup>

In Britain, as in America, whole lines of work, such as neutron investigations, are being discontinued in precisely those free laboratories in which the principles upon which the present secret work is based were first discovered.

Quite apart from the ends which the huge military research projects serve, and the stultifying effects already mentioned, there is another feature which is often overlooked. The nature of the work itself tends to reduce its scientific value. It has been freely admitted that work on the hydrogen bomb is devoid of any possible peacetime applications. The scale and variety of the possible applications of the work done to develop the atom bomb is a measure of the contribution that work made, at the same time, to the progress of science in general. By the same token, the limited use to which work on the hydrogen bomb can be put reflects the smaller scientific value that work will have. Theodore Rosebury makes a pointed comment concerning the parallel work on biological warfare. After saying, as quoted above, that this is bacteriology upside-down, he goes on:

“Yet it is curious and very significant that the abnormality and artifice of B.W. don’t just make it *different* from normal science; in important ways they make it easier, more predictable. In places where bacteriology right side up stalls or goes snailwise at the frontiers of knowledge, the topsy-turvy artificial science can find detours.”

It is a commonplace that creative scientific work, which leads to important discoveries, is *hard* work. When the aim is very much simplified—that is, in principle destructive—the treatment can be much more superficial, so that, effort for effort, its contribution to knowledge is reduced. Such perverted science is not only immoral, but singularly inefficient as a way of contributing to general knowledge.

Would it were true that such inefficiency was the only consequence, in the field of scientific theory, of the present one-sided development.

<sup>1</sup> *Nature*, Vol. 165, p. 659, 1950.

But it is not enough to expand science for military ends at the expense of all others; it is not enough to organise witch-hunts among the scientists; it is not even enough to employ scientists as propagandists in the cold war. The cold war policy demands its "cultural" justification. If the main applications of science are to be restricted to war and colonial exploitation, then the consequent failure to solve the great problems, both material and ideological, of our time, must be blamed on the inadequacy of the scientific method itself. It is now fashionable to set limits to the scientific method. As *Nature*<sup>1</sup> has put it:

"The majority of men of science—and the informed lay public—feel that science has only limited use in the solution of problems largely influenced by emotional and other imponderable factors. Human problems can only be solved by the accumulated wisdom of responsible laymen who interpret such problems in the light of long, varied experience in human relations and which, until we know vastly more than we do to-day about the working of the human mind, can only be described as intuitive."

Such statements are directed against Marxism, but they damage only science—and not only its social applications, for on this basis renewed attempts are being made to reconcile science with religion.

"Religion expresses something inherent in man and responds to something inherent in the universe."

That quotation is not taken from a parish magazine, but from a recent issue of *Nature*.<sup>2</sup>

However, by and large, as Huxley has pointed out,<sup>3</sup> religion "no longer provides a dominant appeal to the majority of people." It cannot (alas?) supply the "ideological driving force" he is so anxious to find for the Western world, in face of the undeniable fact that "communism does provide such an appeal, and an appeal both theoretical and practical in nature."<sup>4</sup> In its dogmatic form, religion certainly makes little appeal to most scientists. More typical expressions of the theoretical crisis in science—not a direct outcome of the militarisation of science, but a necessary complement to and exacerbated by it—is the going to seed of the once-progressive trends, mechanical materialism and empiricism, in

<sup>1</sup> *Nature*, Vol. 165, p. 221, 1950.

<sup>3</sup> *Nature*, Vol. 163, p. 980, 1949.

<sup>2</sup> *Nature*, Vol. 165, p. 619, 1950.

<sup>4</sup> *Ibid.*

neo-scholasticism, eclecticism and anecdotalism; in technique-fetishism; in fact-gathering for fact-gathering's sake; in analysis at the expense of synthesis; in the search not for laws peculiar to the given system but exclusively for lower-order causal factors, that is in "reductionism," as of biology to physics and chemistry; in the replacement of process-concepts by agent- or substance-concepts; in the new respectability of "para-normal" phenomena—and so on. To dilate on this theme would take us too far from the immediate subject, but the connection between them is real. One particular incident must suffice to show the connection, and to show too that all this is not so far from outright, anti-scientific mysticism as many scientists like to believe.

The biggest broadside of the cold war that has been delivered by a scientist among scientists was Huxley's unprecedentedly long articles on "The Real Issue," concerning Soviet genetics, in *Nature*,<sup>1</sup> from which we have already quoted. There Huxley professed a belief that "some kind of dynamic or evolutionary humanism . . . based on science" could provide the missing "ideological driving force" for Western society. Whether or not they subscribe to this particular *naïvété*, his readers will have taken his suggestion as a reaffirmation of faith in the scientific method. Very few of them, we believe, will have seen the interview Huxley granted to another British journal, published almost simultaneously with his *Nature* articles. The journal was *Prediction*, which deals in "Astrology, Palmistry, The Occult Sciences" and "Amazing Secrets of the Unknown." Its cover for July, 1949, along with these sub-headings and a design including the zodiacal circle, the Pyramids, a phrenological chart and a crystal-gazer, was proudly adorned with the title of the main feature: "Dr. Julian Huxley on Yoga." Inside he was quoted as saying: "Much of recent work in physics, for example, has been concerned with phenomena that are basically irrational. The scientific method must take into account the fact of irrationality."

### Conclusions

While science has undoubtedly grown substantially in the capitalist "West" of late, this is not a healthy growth. Rather is it a malignant one, both in its effects on society at large and in its effects within science itself. A great part of Western science to-day

<sup>1</sup> *Nature*, Vol. 163, pp. 935-42 and 974-82, 1949.



is carried on in the stultifying circumstances of bureaucracy, secrecy, and witch-hunting. In so far as the free sector of scientific endeavour has expanded, much of this too is in fact a war investment. This kind of development can do no permanent good to science. If it does not lead to war itself, the present "generosity" of the state toward science will cease as soon as the only prospect that capitalism can offer as an alternative to war, an economic crisis, comes upon us.

The militarisation of science is not an adventitious development, arising from military necessity which is occasioned in its turn by external tensions. The militarisation of science arises from causes within the very heart of our society from which the external tensions themselves are derived.

The days when capitalism engendered the expansion of production of all kinds, and for home consumption, have now passed. Further profits can now be made only by invading new markets, exploiting new human resources and intensifying the exploitation of the old. But in a world entirely parcelled out among existing capitalist powers, or removed from their orbit by the advance of socialism, the drive for more profits can only mean intensified competition<sup>1</sup> between the powers, together with frenzied efforts to stop the process by which people become no longer available for exploitation. It is from this that militarisation stems and, at the same time, the militarisation itself enables big business to draw on taxes for profitable war contracts, and thereby to increase its exploitation of the people at home. In consequence, science which serves military ends becomes the only kind of science which big business, through the state, is really interested in promoting. Scientific work which is not directly of military value is supported only because it may produce results of military value, and meanwhile creates the corps of technicians essential for the eventual conduct of a shooting war.

The different powers in the American-dominated capitalist world fill somewhat varying roles in this general process. In America itself considerable support is given to a more or less perverted and stultified development of fundamental research. In France, which has been allotted the lowly but important role of supplying man-power for the American war machine, science is being strangled. French technological development is to depend upon purchasing techniques

<sup>1</sup> The need for science to meet such competition is a main point of both the Barlow and the Steedman Reports.

from America, rather than on developing them for herself. Britain occupies an intermediate position.

The militarisation of science has another social function. There have been some second thoughts in the last year or two on the practicability of "push-button" warfare. But this represents only a modification, not the abandonment, of the attempt to substitute machines for man-power, as a necessary compensation for the lack of enthusiasm to be killed in the kind of war now envisaged.

The third important function of the militarisation of science is to assist in the militarisation of the country as a whole, in the interests not only of war preparations, but also of domestic reaction. Terrifying stories of the wholesale destruction which science has now made possible numb the wits of the people, so that the militarisation is accepted as inevitable, and the mildest liberal can be presented as a traitor to his country. In this atmosphere the initiative passes into the hands of the most fanatical reactionaries. Witness McCarthy's attack on Acheson.

Scientists have begun to take a stand against this prostitution of their creative work, and the opposition is growing. Twelve prominent American physicists have issued a statement on the hydrogen bomb,<sup>1</sup> saying:

"We believe no nation has the right to use such a bomb, no matter how righteous its cause. This bomb is no longer a weapon of war, but a means of extermination of whole populations. Its use would be a betrayal of all standards of morality and of Christian civilisation itself. . . . We urge that the United States, through its elected Government, make a solemn declaration that we shall never use this bomb first."

And in a recent British symposium on the hydrogen bomb, Dr. G. O. Jones of the Clarendon Laboratory, Oxford, declared:

"Neither is it any use simply waiting for the end and doing our rather ineffective part to accelerate it. And if I, personally, am asked to help in developing a super bomb, I shall say 'No; I am sorry; it is too disgusting.'"<sup>2</sup>

Such declarations are an encouraging beginning, as is the resistance put up in America to the indefinite extension of loyalty

<sup>1</sup> *Bulletin of the Atomic Scientists*, March, 1950, Vol. 6, No. 3.

<sup>2</sup> *Atomic Scientists News*, Vol. 3, p. 90, 1950.

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investigations. Indeed, American scientists are here setting an example to their British colleagues.

But it is still necessary to bring home to scientists in general the scale and ramifications of the militarisation of science, both direct and indirect, as the central problem in science to-day. Two kinds of illusions to which scientists are subject actually facilitate the tendencies outlined: their short-sighted confidence in the new generosity of the state toward science, and their feeling of impotence in face of the march of world events.

What they overlook is that the state's generosity to them is a measure of their indispensability to it. They now occupy a uniquely powerful position, added to their traditional if somewhat battered prestige. Any public action by them has an effect entirely out of proportion to their numbers in the community. Socially-responsible scientists have anxiously and lengthily discussed what they ought to do, particularly in connection with the atom bomb, but have underestimated what they can do. They are paralysed by their sense of political isolation. But in fact there are vast popular forces on the side of such scientists, which they in turn can do much to mobilise, as men like Joliot-Curie and Bernal have shown. By participation in the world-wide peace movement, the scientists will not only find the allies they need in resisting the perversion and stultification of science now. They will also find, in the future, that with those same allies they can ensure instead a healthy and unlimited expansion of scientific discovery and its social application.

## The Militarisation of Science

### BRITISH GOVERNMENT EXPENDITURE ON RESEARCH AND DEVELOPMENT

Item	1936-7		1950-1		Ratio, 1951:1937
	£000	per cent	£000	per cent	
Services <sup>1</sup>	1,536	34.7	103,282	82.5	33.7
Empire	56	1.3	2,321	1.8	20.7
D.S.I.R.	583	13.2	5,942	4.8	5.1
Health	199	4.5	1,751	1.4	4.4
Food <sup>2</sup>	545	12.2	4,362	3.5	4.0
Universities <sup>3</sup>	1,050	23.7	5,821	4.7	2.8
Miscellaneous	461	10.4	1,616	1.3	1.7
Totals	4,430	100.0	125,100	100.0	14.1
Col. (a)	(b)	(c)	(d)	(e)	(f)

Note: The 1937 figures (except for the universities) are taken from Bernal, *The Social Function of Science*, London, 1946, p. 422. The universities figure is half that of £2,100,000 given on p. 13 of *University Development from 1935 to 1947, Being the Report of the University Grants Committee*, H.M.S.O., 1948. The 1951 figures are taken from *Civil Estimates, 1950-51, Class IV*, H.M.S.O., 1950, quoted in the *Scientific Worker*, May, 1950, where it is further shown that the Government's research expenditure is three to four times that of private industry, and the reasons are given for treating the whole of the Ministry of Supply expenditure as military. Additional explanation and detailed discussion of the distribution of scientific effort will be found in the *Scientific Worker*, August, 1948, p. 20. The figures in col. (f) are arrived at after halving the 1951 estimates in col. (d), in order to make approximate allowance for the increase of prices (according to the *Bulletin of the London and Cambridge Economic Service*, May, 1950, retail prices for the first quarter of 1950 stood at 183, wholesale prices at 242 and weekly wage rates at 195, taking 1938 as 100).

<sup>1</sup> 1937—three services; 1951—Ministry of Supply and Navy.

<sup>2</sup> Min. of Agr. and Fish. (incl. Scotland), A.R.C., etc.

<sup>3</sup> The figures for both years are half the Parliamentary grant to the universities through the U.G.C., on the generous assumption that half the total grant goes to research.

## Culture in the Camp of Peace

BY STANLEY EVANS

IF you go to the Bolshoi Theatre in Moscow to see the world-famous classical Russian Ballet you will be watching an outstanding example of the formal expression and exercise of a culture, and this will be true not only of what you are seeing on the stage, but also if you can take your attention from the ballet itself, of an audience which has, in the main, trained itself to appreciate and understand this highly stylised form of art. Nevertheless, it is all too often forgotten that culture means something far more than this. Music, drama, literature, painting, these things are certainly "cultural," but no single expression of a culture is the culture itself. A culture is, in fact, the whole pattern of living of a society or a class within it. So Ascot and Henley and beating by prefects and insistence on the retention of hanging are just as much a part of the culture of the English upper class as are the Chelsea Flower Show and attendance at the opening of the annual exhibition of the Royal Academy.

It is important to remember this because it is essentially the culture, the whole pattern of living, from the famous line Stettin-Trieste to the other side of China that is under perpetual attack in the western world to-day. The theme has, unfortunately, become commonplace, and it would be possible to fill pages with quotations illustrating the point. The following must suffice (it being understood that the word "communism" in this context is never an abstract; it always means the U.S.S.R. and the New Democracies):

"Communism is a religion and is anti-Christian, retrograde and immoral; as a Christian soldier, I declare myself an enemy of communism and all it stands for" (Field-Marshal Lord Montgomery to the English-Speaking Union, New York, November 29th, 1949).

"These governments are a conspiracy against their peoples" (*The Observer*, February 19th, 1950, commenting on the Sanders-Vogeler trial).

"It does not follow . . . that the two systems, theirs and ours, cannot exist concurrently in this world. Good and evil can and do exist concurrently in the whole great realm of human life" (Mr. Dean Acheson at the University of California, March 17th, 1950).

"Drowning all these lesser noises is the discordant voice of totalitarian communism, menacing all those things which, over

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centuries, goodwill has fostered—freedom and justice and the rule of impartial law; democracy in its true sense—and those fundamental rights and dignities which men have learned to respect in one another" (the Archbishop of Canterbury, Christmas Broadcast, 1949).

It follows that the culture of the U.S.S.R. and the New Democracies is retrograde and immoral, is the total denial of goodwill, that it epitomises the abolition of fundamental rights and dignities, that it is the personification of Evil, that its practice is a "conspiracy" against peoples. In short, it is the very devil.

Now it would be very wrong to suggest that the gentlemen who speak like this, in the full knowledge that they are influencing the minds of millions, are in any conscious sense pupils of Hitler. Yet they are in fact practising Hitler's basic propaganda principle that if you want to persuade people that something is true, a slight departure from the truth is of no use, and that when you lie you must lie in a big way.

Why they do this is an interesting and important subject, but its discussion is outside the scope of this article, which is written simply to demonstrate the fact that all these statements are untrue and are, in fact, one of the major bluffs of history. To prove this I draw on my own personal knowledge of the Soviet Union and all the New Democracies of Eastern Europe except Bulgaria and Albania and, in particular, on a recent visit to Czechoslovakia, Poland and the German Democratic Republic.

All these countries have their differences which arise from their divergent histories, geographies, languages and cultures. At the same time, their systems all have a common basis which, although it may be stated in the abstract, has to be seen to be appreciated. This common basis lies in the idea that society must become a community and that the basis of community in human society must be the communal ownership of the major resources of society. At this stage it is important to notice that this communal ownership is not necessarily achieved in a moment of time and that there is in Eastern Europe to-day a mass of small peasant proprietorship which will remain until the peasants themselves have decided that communal ownership is the better way. This communal ownership, moreover, does not necessarily and always take the form of state ownership. It also takes the form of co-operative enterprise, as when individual peasants voluntarily join together in co-operative or collective farms. In the new society so formed, all men have

the duty to work to the common advantage and equally all men have an inalienable right to essential human opportunities.

These things are expressed in the constitutions of the Soviet and New Democratic States—rich and moving human documents which should be much more closely studied in this country, by both the supporters and the critics of the countries from which they spring, than is in fact the case. But they are not only expressed in constitutions! They are also expressed in living human terms which, once seen and experienced, make it impossible evermore to compromise with the highly placed and well paid sophists who, from their vantage-points of total ignorance, contentedly mislead as many millions as are fools enough to fall into their snares, to the accompaniment of a sublime assurance of moral superiority which places them, as history will one day record, on a moral plane immeasurably below the simple people who, with however faltering steps, are marching bravely and with confidence towards the real future of humanity.

Let me illustrate. What is the reality of saying that small peasant proprietorship will remain “until the peasants themselves have decided that communal ownership is the better way”? I found the reality expressed in a discussion I had in a cottage kitchen in the village of Wiezbica in Poland. It would need an artist to paint the scene. The cottage was brick-built and to an English eye bare of furnishings and knick-knacks, although, certainly, there was a none too artistically conceived picture of Our Lady on the wall. I sat there with a friend, surrounded by three or four farmers in breeches and heavy boots and a whole bevy of women (most of whom were suckling infants), who had crowded in from the village street in which they had previously been performing their maternal functions, to find out what was going on.

This little village had gone co-operative, and we proceeded to discuss it. Had they done this entirely on their own initiative? Yes, after a very long discussion, but they had been aided by the fact that the local administration was ready to give loans to co-operatives. They had taken loans to build these brick cottages. Did this loan mean a burden? No; they spurned the idea. It had to be repaid in the course of thirty-six years. For six years they would pay nothing, and then each family would have to pay 30,000 zloty a year. If you looked at it in terms of pigs alone, they said, each family kept an average of four pigs, and each pig provided 30,000 zlotys. One pig a year would deal with the loan.

Compare the houses, they said, with the ones a mile down the road (some of the most degrading hovels I have ever seen). And look, they had electric light—and there was an electric iron!

At this point the women burst in. “We have never known anything like it,” they said. “Real life started with the co-op. Our labours are lighter than they have ever been. We could not possibly go back.”

“But did people talk like this before it started?” I said. “Was there no opposition?”

At this point the men chuckled and the women blushed. Most of them just bent over their babies. Then one of them burst out: “Well, they told us that we should be communalised too and that we should have to sleep with all the men, and we weren’t going to stand it.”

So now there was no opposition—there was just progress, and progress of a moral quality utterly beyond the capacity of the distinguished denigrators. The next day they were opening their crèche for the first time. Where was it? Oh, there wasn’t a building; they hadn’t got to that stage yet. But come up here. Here was the three-roomed cottage of a shock-worker and his wife who had decided that social progress could not be halted just because there weren’t facilities. And so two of their three rooms had been turned into the village crèche and would remain so for at least a year until the permanent crèche was built. And it is to these people that they who talk of faith in God, but appear to have a practical faith only in the atom bomb, prate of morals!

The men at this farm had only one complaint. They were having to spend too much of their time showing other people round it. They saw the importance of it, but they had their own work to do. Who were these people who had to be shown the place? Foreign visitors? Officials from Warsaw? No—peasants for a hundred miles around who were debating and arguing as to whether they should combine their holdings and who wanted to see how it worked out in practice. What they saw was not only a contented community and not only improved material conditions, but increasing productivity and therefore a higher reward for labour. These are the things which will spread the co-operative system.

And what is the reality of an inalienable right to essential human opportunities? The answer is that it is almost everywhere. More than anything else, perhaps, it takes me back to a village about thirty miles out of Bucharest in the autumn of 1948 and a peasant

with tears in his eyes. He was one of many who for the first time in their lives owned their own land and were no longer encumbered with debts to landlords, but that was not the cause of his embarrassment. He had just demonstrated that he could read! The new society had not only brought him land, it had also brought him the immeasurable gift of literacy, and he saw opening up before him a great, uncharted world of reading and learning and culture which had, until recently, been as much the private preserve of the landowner as the land itself.

But this by itself is the subject of a book and not an article. There was, for instance, that college in the suburbs of Budapest. They called it a People's College. It was true that it was only a few houses thrown together in which lived about sixty young people, who went off in the daytime to take courses in drama or art. But their enthusiasm was unbounded. They had never thought to have such an opportunity. In the evenings they acted plays and discussed every subject under the sun. One subject, however, was quite beyond them, and I could give all too little enlightenment. Why did so many distinguished people in Britain talk that utter nonsense about "enslavement" in Eastern Europe, and why did intelligent men like Mr. Priestley not rebuke them when they did?

Or, again, there was that mansion in Cracow which had formerly belonged to the Potocki family and is now a living centre of people's culture. It was here that not long since an American journalist who might have been expected to know the facts of life, having been told of the former ownership as he came in, gazed at the handsome sculpture of Karl Marx that now stands in the entrance hall and asked which generation of the family was that? And there was that unbelievable children's club in Leningrad. And that wonderful rest home in Latvia where peasants and miners rubbed shoulders with Arctic explorers and musicians. And that very popular library in Bratislava. . . .

At the basis of any living pattern is a people's approach to work, their technique, their spirit, their methods. What do we find here? Levels of techniques vary, but obviously improve all the time. The significant facts lie in the whole approach to work and the resolute determination that man must master technique and not be mastered by it. There are those in America and even in Britain who would gasp if they saw some of the methods of work in use to-day in Warsaw—at rubble, for example, being shifted by hand and in

carts instead of by a combination of bulldozer and lorry. There is a shortage of bulldozers and lorries, and they are not the only thing that factories have to provide in this war-stricken country. But no shortages may stop the rebuilding of the country. They are determined that it shall be rebuilt, and so they will go to any lengths of labour to see that it is.

But let no enemy of Poland take comfort from this and form the conclusion that the reconstruction is necessarily slow. They have many tools and they know where to use them, and blocks of flats rise there in three months whose equivalent I have watched three years a-building in London. Part of the explanation of this is a real enthusiasm for labour (in Bucharest the night shifts would go off to their building sites in lorries singing as they went), the social value and purpose of which is clear and obvious. It is this enthusiasm which produced the Soviet Stakhanovite and has led in turn to the "shock-worker" all over Eastern Europe.

"Speed-up," mutters the sullen critic, to which the answer is yes, but a speed-up based on acceptance of workers' inventions and workers' criticisms and a constant improvement of co-operative work. Behind all this there stand the trade unions, who conceive it to be their function to protect the living and labour conditions of the worker, *but also to help him perform his function of being a worker*. In the language of current political abuse, this is known as "the subservience of trade unions to the state." Could there be a greater *moral* exposure of those who so talk and think than their complete inability to conceive even the possibility of a community in which the exploitation of workers for another's profit has gone and therefore increased production is not only the interest of the state or of managements, but the direct interest of the organised workers and, indeed, their main method of fulfilling the fundamental purpose of all trade unions, which is to improve the living standards of the workers?

It is an illustration of a deep grasp of the interdependence and the common interest of all workers that in Czechoslovakia or Poland, or any of the countries which we are discussing, each factory has only one trade-union organisation. Craft unions have gone, and the skilled engineer, the cleaner, the manager and the typist are all fellow members of the one union and all join in electing their representatives to a whole variety of committees and councils. It hardly needs to be said that for all the talk about absence of democracy, not only the trade unions but every aspect

of living in the countries under discussion is elective through and through. It is presumably regarded as "undemocratic" because the result of the voting is that majorities go to people whose views do not correspond with those of the western governments.

The growth of a real democracy is indicated perhaps more than in any other way by the part which organisations of the people are playing in the general life. Outstanding in this are not only the trade unions, but the co-operatives. If Poland be taken as the example, there are to-day three basic types of co-operative which have between them a membership of 5 million people. These are the consumers' co-operatives, which run parallel to the state trading organisations and compete with them, the rural co-operatives which organise a variety of forms of peasant self-help, and the workers' co-operatives, which are small co-operative production units. The co-operative farms are distinct from this movement, but again, as has already been mentioned, are a striking form of people organising themselves and controlling their own lives (can it be that this is the real secret of their immorality?). It is to be noted that these co-operative farms are not to be automatically compared with the much more fully developed collectivisation of the U.S.S.R. In fact, they take three forms, of which the first is simply a union of common cultivation in which each owns his own land, but the heavier work is shared, each paying the co-operative for the work its members do for him; the second is a real co-operative in which the land is pooled, but distribution is on the basis partly of work done and partly of land owned; and the third is the full-scale collective farm.

The variety of popular organisations is, of course, much wider than the critics are prepared to admit. Pioneers, scouts (in Poland), sports clubs, unions of women, unions of former political prisoners, cultural unions, the bases on which people combine are as extensive and varied as their life itself. At this juncture of history, however, there is one outstanding organisation which must be mentioned—it is the peace movement.

Among all too many people in the west there is a vague idea that while in their countries there is some popular organisation which petitions against the atom bomb, in the east of Europe, because the governments themselves are against the atom bomb, there is no need of popular organisation. There could be no more fundamental misunderstanding of the New Democracies, whose whole living is based on popular organisation. In fact, the peace movement

in all these countries has produced an enormous upsurge of popular feeling and organisation. I discussed the matter in Prague with the Chairman of the Peace Movement, the Vice-Chairman of the National Assembly, Mme. Hodinova Spurna, who explained that the basic idea of the movement was "Build your country and you strengthen peace," and who explained how the shock-workers' movement in the factories was being linked with the peace movement and how the peace movement was not setting up a separate organisation in the factories, because all the shop stewards' committees had agreed to act in the factories for the peace movement.

Lectures and discussions were being held all over the country, and the result of this I saw myself in the overwhelming peace *motif* of the May Day demonstration in Prague. The effect of the whole situation on the large number of non-politically minded people was illustrated in one of many letters sent to the Chairman of the Peace Committee from a country woman:

"I am not a member of any party. I have four children aged eight, five and two years and four months, and very little time for politics. . . . A fortnight ago on the American radio I heard a priest saying that we are murdered here and locked up . . . my blood boils when I hear this, and I ask whether somehow you will reply to these people. I would like you to tell them that they should leave us alone and let us live in peace. If only they knew the reality of what they call 'terroristic communism' which enables us to live decently and buy things for our children."

In Poland the whole emphasis of the peace organisations is on the concept that "the coexistence of different systems is possible." If wartime co-operation was possible, they argue all over the country, peacetime co-operation is also possible. Although they discuss peace in the factories, there has been no signing of peace petitions in Polish factories. The National Committee decided that this was to be done on a residential basis, and so teams of three have visited every dwelling in Poland, not simply to ask for signatures, but to discuss the matter and explain what it is all about. Special booklets have been produced for the training of these teams. This does not, of course, mean that central sources of propaganda have not been utilised; indeed, my last memory of Poland is of the loud-speaker broadcasting the appeal of the Warsaw Peace Committee as the train steamed out of the station.

There can be no understanding of Eastern Europe to-day unless

it is realised that although there are many matters on which its peoples are divided and which are subjects of constant discussion, with the exception of an extremely small, if sometimes malignant, minority, peace is not one of these questions, and the peace movement extends into all sections of the community, including the churches.

At this stage it is perhaps important to say a word about the churches. The Roman Catholic situation, in particular, has been constantly misrepresented in this country by the apostles of superior morality and is even now being widely distorted in the case of Hungary. The truth is that there is not one single matter on which the governments of the New Democracies have been more patient than on this question.

This sentence alone will, I know, raise many eyebrows. Why does a government need to be patient? What business of the government is the church? But the answer to this is that you cannot seriously expect governments to continue indefinitely paying the bills of churches who refuse even to recognise the legal validity of the government: Central and Eastern Europe in general have had a long tradition of state-aided churches. This tradition has been maintained in Poland, Czechoslovakia and Hungary throughout a period when the bishops have ostentatiously refused to recognise the republic in which they live. The result, however, has been an increasing isolation of the bishops from masses of their own clergy and from the overwhelming mass of the laity. It is this pressure from within that, more than anything else, compelled the recent Church-State Agreement in Poland which is bound to have a growing effect on the Hungarian and Czechoslovak situations.<sup>1</sup>

Despite the agreement, however, a struggle still goes on inside the churches. Two bishops in Poland recently ordered their clergy not to sign the peace petition on the ground that Article 9 of the Church-State Agreement defined the churches' attitude to peace and no more need be said. On the other hand, other bishops have urged their clergy to sign as a Christian duty. This internal conflict is real and significant; things emerge from it which are important and which are welcomed by peoples and governments. As the new Minister for Church Affairs in Czechoslovakia, Mr. Fierlinger, put it: "We are building socialism and we propose to succeed in building it. If the Christian churches will help in any way, we should

<sup>1</sup> The Hungarian bishops have now reopened negotiations with the Government.

welcome it. Their moral power, used for the people, is wholly desirable."

The people! This is the supreme and universal test of policies and parties in the New Democracies—where will they take the people, how will they treat the people? And how indeed are the people faring?

Much of the worry on this question really springs from the fact that there are no longer two kinds of people—the people and the best people, and it is generally the "best people" in the west who are so morally disturbed at the fate of their opposite numbers and who resolutely refuse to face the fact that this division itself is profoundly immoral. The "fate" of the "best people" in the New Democracies has in fact been a very simple one. The mountains have been cast down and the valleys exalted, and the best people have been relegated to the now exalted status of "ordinary people." Large numbers of them have accepted this, and you will find them to-day working in all kinds of enterprises, including government offices. Some of them have not been content with this and have preferred to back a third world war rather than lose their former debilitating status. It is this that has led them into the courts, where they have been convicted on the basis of abundant evidence which is only denied—and let nobody miss the significance of this—by papers and persons who themselves refuse to lift one finger to stop a third world war.

If they are convicted, what grim fate is theirs? The sentences are public for all to study, and I can offer only one illustrative experience.

Just outside Bratislava I visited a large construction site, where the workers were largely, although not entirely, people on remand from labour camps. In Czechoslovakia the maximum labour camp sentence is two years (longer sentences are served in prison), and the custom is now growing for people to be allowed out on remand after three or even two months in return for signing a contract to work on a construction site for three years. At this one, those whose homes were in Bratislava went home at night. Those who lived further away went home for the week-end. Their living conditions in solid wooden huts were good and were about the same, they told me, as those in the labour camp. Some had committed political offences, some had been sentenced for evading work and living on their wits (the "spivs"), and others for black-marketing. They all received trade union rates of pay and the system was obviously having an effect as remedial treatment.

One man there had owned a shop which had been nationalised and of which, according to custom, he had been made the manager. He was, however, as people say, bloody-minded as a result, and embarked upon black-marketing in a big way. He was caught and sentenced to two years in a labour camp. After two months he came here. Had he any idea, I ventured to ask, what he would do when he left? Yes, he replied. He had now started building work, he saw a future in it, and he proposed to go on with it. But he wished to be skilled and had decided to take up carpentry. It had already been arranged that he would start a course in two months' time.

No—the social misfits of the new society need not cause so much moral concern in the west; indeed, the superfluity of moralising so used might be more profitably employed in colonial and other fields.

If we turn from the misfits to the masses, we find the growing enthusiasm of people who, although they are still confronted with many shortages and difficulties, and who still certainly have to work very hard and will have to continue to do so for a long time to come, are yet overjoyed and exuberant, if sometimes a little bewildered, as one by one the doors of life open to them.

I remember, indeed, my own amazement on visiting a "cultural centre" in Wroclaw. In one room in the musical department was a rather ragged and down-at-heel youngster receiving individual tuition on the violin from a highly qualified musician. In the next room it was the piano. In the next the 'cello, and so it went on. By this method in the last eighteen months three outstanding people have been "discovered" for Polish opera. Before the war none of them would have had the chance of learning to play at all unless their families had been able to raise substantial fees, and even then the idea of rapid promotion to the top would have been inconceivable.

Really to understand these peoples you have to grasp what they have emerged from and what they had to fight against. Only then do you appreciate such diverse matters as the tenacity with which they defend their new societies and their concepts of literature, and you can still get a condensation of the whole picture if you will but go to Oswiecim, or what the Nazis called Auschwitz. What you find epitomised there is not simply cruelty and barbarity, but a whole concept of human society which regards the mass of people as "hands" or production units and which has no further use for them when they cannot produce. The only new thing about Auschwitz

was that it found a use for the useless—you produced from them gold fillings, artificial limbs, hair for matting and bone-ash.

Why drag up the past? The answer is because it is not simply the past; it is of the living present, and this you will see if you go to the capital of the youngest of the New Democracies—the German Democratic Republic.

So I conclude with a few remarks on Berlin. In the week of Whitsun Berlin was not merely the focal point of world attention; it was also the focal point of the current world conflict. On the one side, the Democratic sector of Berlin, the blue-shirted youth movement was over all with its songs of unity and peace and freedom and all its joyous celebrations performed against the background of a society which had abolished unemployment, found its way at last to a really expanding economy, and begun to tread the road of co-operative living. On the other side, arrests for collecting signatures on peace petitions, no songs and slogans, American films and much blatantly obvious prostitution against a background of unemployment, anti-semitism, anti-sovietism and a nationalism and racialism which, seen in cold print, take you straight back to Streicher!

It is at this point that words fail. You look at the entire fundamental decency and goodness, the whole purposive human striving, the deep peacefulness of the New Democracies and the Soviet Union—and they call it immoral. Then you look at the degradation of Western Berlin and most of Western Germany with all its hates and lies and distortions and its incipient Hitlerism—and they call it a bastion of democracy.

There is a conspiracy against the peoples, and it is to be found in this distortion; there is something retrograde and immoral abroad in the world, and it is this deliberate attempt to persuade the peoples that white is black and black is white. And the fundamental rights and dignities of man? They have never been so outraged as in this blasphemous inversion of all human values.

*"Oh cease! must hate and death return?  
Cease, must men kill and die?  
Cease, drain not to its dregs the urn  
Of bitter prophecy."*



Religious Reaction in the Epoch of Imperialism

BY LIONEL M. MUNBY

A MARXIST study of the relationship between modern class society and the churches is long overdue. Two conflicting social traditions exist in Britain: that of rationalism with its exposure of the crimes committed in the name of religion; and that of Christian and ethical socialism, preaching Christ the Social Reformer. Marxist, and even radical historians, have studied religion in seventeenth-century England, and begun its study in the early nineteenth century, with a more profound analysis; in our own epoch, the period of imperialism, of the decay of capitalism, there has been no work done except by church historians. This article it is hoped will draw attention to an important front of the battle of ideas in our time.

Roger Garaudy in a recent book<sup>1</sup> has given us a Marxist outline study of the Roman Catholic Church. In the Middle Ages the church was not merely the ideological voice of the then ruling class, but in fact itself the largest, single, landowning section of the ruling class. Inevitably such an institution resisted the rising bourgeoisie. In time it had to make its peace, and Garaudy has shown how the Vatican has become to-day the largest and most far-reaching of all international trusts. Its dual character is repeated again in the period of imperialism. There is an historical parallel with that of the bourgeoisified Junkers of Germany. It is hardly surprising then to-day to find that the mantle of the most reactionary section of European capitalism has fallen from the shoulders of Nazism on to those of the Vatican. What strength would Western Union have if agents of the Vatican were not to-day leading the Governments of Spain, Italy, France, Austria, Western Germany and Belgium? That within the Roman Catholic church the voice of the peasants and of other working peoples is heard, though muffled, we know, but the dominant policy of the Church is that of the extreme reactionary circles of international capitalism.

Roman Catholicism in Britain from the Reformation and the bourgeois revolution of the seventeenth century until the nineteenth century was identical in popular opinion with feudal reaction and foreign domination. The anniversary of Gunpowder Plot was

<sup>1</sup> Roger Garaudy, *L'Église, le Communisme et les Chrétiens* (1949), Editions Sociales, Paris.

a real national holiday for bourgeois England, and "No Popery" a cry to arms in defence of national independence and domestic liberty. But in Ireland Roman Catholicism developed a very different tradition: the religion of peasants, whose landlords and foreign rulers were Protestants, could not but in some measure reflect their struggle against exploitation. In the nineteenth century Irish Roman Catholics flooded into England as cheap labour, bringing their religion and its traditions with them. The boasted revival of Roman Catholicism in late nineteenth-century and twentieth-century England is very largely, though not entirely, a by-product of the Irish invasion. This implies that a proper study of Roman Catholicism in England cannot be undertaken except in relation to the history of Ireland's struggle for national independence. T. A. Jackson's *Ireland Her Own* indicates the lines on which such a study might develop. It is impossible to begin it here, except to suggest that the decline of Roman Catholic influence amongst the Irish in England to-day is partly a consequence of developments following the bourgeois conquest of power in Eire.

The other source of Roman Catholic growth in nineteenth-century England and since has been by conversion from the ranks of the ruling class and amongst intellectuals. This lesser stream has not dried up and springs from the very character of imperialist society. Its source is most clearly revealed by an analysis of recent changes in the Protestant churches of Britain, the main purpose of this article. All Protestant churches differ from Roman Catholicism in having in some sense a revolutionary origin, in common with their bourgeois progenitors. The revolutionary origins of their political systems and their ideas have become increasingly embarrassing to the bourgeoisie everywhere, not merely because here is an example which may be copied, but because they are responsible for the very character of these institutions and ideas, a character which has assisted the proletariat and made possible its organisation. Lenin said: "Democracy is the political superstructure of competitive capitalism; the political superstructure of monopoly capitalism is the turn from democracy to reaction." This is true of ideas as well as of institutions, and in England it has taken the form, in religious thought, of a turn from Protestantism in a reactionary swing which brings Protestantism nearer and nearer to Rome.

In eighteenth-century England a new section of the capitalist class was rising, and was soon to take over power. It found one

aspect of its ideology in Adam Smith and Bentham; from the Wesleys and in the Evangelical movement it found another. For its own purposes, it revived the revolutionary religious tradition—an individualism based now on preaching and conversion as well as on Bible reading, attributing all social evils to individual sin and underlining personal responsibility. From two aspects at least this ideology suited the rising industrial capitalists: for themselves it cloaked the success of the self-made man with an armour more effective than ancient titles; at the same time it explained the position of those they exploited as the fault of the individual worker and not as the result of class exploitation. Evangelicalism paved the way for Sam Smiles and Self-help. It is quite logical that Jabez Bunting, the Archpriest of Wesleyanism in the thirty years before 1850, should have declared that “Wesleyanism is as much opposed to democracy as it is to sin,” for democracy in the 'thirties and 'forties meant in the eyes of Evangelicals giving sinners votes. The function of Evangelicalism in staving off revolution in England between 1810 and 1820 and again in the 'thirties and 'forties has been discussed by Halévy, Maldwyn Edwards and Laski. Methodism has been called the Church of the Industrial Revolution. The climate in which *laissez-faire* grew was as much the creation of the Wesleys as of the economic and political writers. No wonder Owen in 1817 had been driven to declare himself “not of your existing religions nor of any yet taught in the world”,<sup>1</sup> and Lovett and Hetherington in 1831 to meet the Archbishop of Canterbury's national fast day to stave off the cholera epidemic with a highly popular national feast day. George Jacob Holyoake, in his funeral oration for Owen in 1858, said: “How can character be made? The only national way known in Owen's day was by prayer and precept. Owen said there were material means, largely unused, conducive to human improvement. . . . In every town nests of pestilence coexisted with the churches, which were concerned alone with worship. Disease was unchecked by devotion. Then Owen asked, ‘Might not safety come by improved material condition?’ ”<sup>2</sup>

The conversion of thousands of workers could not prevent the development of the class struggle; indeed, this was reflected within the Evangelical churches, in the many break-aways from the

<sup>1</sup> R. Owen, *A New View of Society, and Other Writings* (1927), Everyman. See *A Catechism of the New View of Society and Three Addresses*, especially pp. 193, 216.

<sup>2</sup> G. J. Holyoake, *The History of Co-operation*, (1908), T. Fisher Unwin, pp. 67–8.

parent Wesleyan stem, each and every one because of the church members' own desire for a greater Church democracy. It was from these powerful working-class break-away churches that so many of the earlier leaders of the trade unions and political unions came. Not merely the men but the experience and the techniques of mass organisation were scattered widely, when not pioneered, by the democratic churches. It was no accident when Lovett described the National Union of the Working Classes as based on a Methodist Class Meeting,<sup>1</sup> and that thirty to forty years after most of the Dissenting churches had developed their home missionary societies, to parallel their foreign missionary organisations, the Chartist Convention should send out its missionaries and Owen his socialist missionaries. But if many workers burst through their religious shackles into class struggle, the most significant influence of Christianity in England up to 1848, for what was to follow, was the side-tracking of working-class struggle into “pie in the sky.” Its effect was to loosen the hold of the churches, even of the Methodists, on the working class.

Mrs. Gaskell's novels of the 1840s and 1850s show the typical working-class leader as bred on Voltaire and Tom Paine.<sup>2</sup> In 1848 the Congregational Union “asked why the Independent churches attracted tradespeople but not artisans,” and was answered from all over the country: “it was vain to hope for a hearing unless the churches ‘manifested greatly increased sympathy with the working classes in their strong desire to possess the elective franchise’ and practised more democratic principles in their church offices.” The reference was to pew rents in particular.<sup>3</sup> The religious census of 1851 revealed how far the ruling class had isolated themselves: the census statistician claimed that only 58 per cent. of the population were potential churchgoers and that there were places in churches for 57 per cent., yet less than half of these attended church.<sup>4</sup> Elliott-Binns said “that of the working men of England in 1856 only 6 per cent. went to any place of worship in the country, whilst in the towns the figure was as low as 2 per cent.”<sup>5</sup>

Much later, at the end of the century, Hugh Price Hughes, the leading Methodist of his generation, was to look back and declare:

<sup>1</sup> *Life and Struggles of William Lovett* (1920), G. Bell & Sons, p. 69.

<sup>2</sup> Mrs. Gaskell, *Mary Barton and North and South*.

<sup>3</sup> Albert Peel, *These Hundred Years. History of the Congregational Union, 1831–1931* (1931), Congregational Union, pp. 204–5.

<sup>4</sup> Elie Halévy, *The Age of Peel and Cobden* (1947), Ernest Benn, p. 341.

<sup>5</sup> L. E. Elliott-Binns, *Religion in the Victorian Era* (1946), Lutterworth Press, pp. 77–8.

"We have laboured as if Christianity ought to remain stranger to politics, commerce and public recreations. The plight of Europe is in measure due to the narrowness of the faithful. It is the result of individualism."<sup>1</sup> In the middle of the century the man who was largely to pave the way for a ruling-class solution to this problem, the religious apathy and hostility of the workers, F. D. Maurice, described the character of his times: "The upper classes became, as may happen, sleekly devout, for the sake of good order, avowedly believing that one must make the best of the world without God; the middle classes try what may be done by keeping themselves warm in dissent and agitation, to kill the sense of hollowness; the poor, who must have realities of some kind, understanding from their betters that all but houses and laws are abstractions, must make a grasp at them or else destroy them."<sup>2</sup> Maurice and the Christian Socialist group, which revolved around him, realised that if they were not able to lead the workers to win their demands, the leadership might fall into hands which might want too much. The time was opportune (1851); their efforts were only a small part of the process which created the first English "aristocracy of labour," but they began also, as Kingsley wrote, "justifying God to the People," weaving anew the web of deceit which stifled the development of much revolutionary activity.

The English crisis of the 1870s and 1880s heralded the development of monopoly capitalism and of imperialism. The character of the ruling class and of the class conflict was changing. Just as the ruling class, growing smaller in numbers, abandoned the Liberal Party and began to make use of the Conservative Party, which had represented until then the survivors of the ruling class of the period before industrial capitalism, so it rejected the atomist political ideas of Liberalism and began to develop corporate ideas. European fascism in the 1920s and 1930s drew heavily on English ideas of the 1890s. A neo-Hegelianism was spread at different intellectual levels by Bosanquet and Kidd.<sup>3</sup> The Churches could not escape from this change in the "ruling ideas"; indeed some of them at any rate might claim to have pioneered it. A Cambridge historian of the Churches wrote: "The Oxford Movement did not

<sup>1</sup> Quoted in Maldwyn Edwards's *Methodism and England* (1944), Epworth Press, p. 160.

<sup>2</sup> Quoted in Elliott-Binns, *op. cit.*, p. 65.

<sup>3</sup> Elie Halévy, *A History of the English People*, Epilogue, Vol. I, 1895-1905, (1926), Ernest Benn (1939), Pelican Books, Book I, Chapter I, section "Imperialism as an Ideal."

stand alone; it was part of a general and widespread revival of the 'corporate' as against the 'individual' spirit, which showed itself in all departments of life as the nineteenth century advanced."<sup>1</sup>

Why was traditional Protestantism, Evangelicalism in England, found inadequate by the ruling class from the 1870s onwards at least? Obviously a philosophy based on pure individualism, suitable for competitive capitalism, was less suited for monopoly; leadership and authority needed to be emphasised to justify the new "Supermen," captains of industry. Protestant theology had ceased to impress the working class with "pie in the sky," it had even been abused by them; they had learnt from the churches how to organise their class. Engels described how the British bourgeoisie reacted to the defeat of Chartism in the succeeding decades by "spending thousands and tens of thousands, year after year, upon the evangelisation of the lower orders; not content with his own native religious machinery, he . . . imported from America revivalism . . . and . . . accepted the dangerous aid of the Salvation Army."<sup>2</sup> Yet rationalism was popular and spreading; its peak was probably reached in the late 1870s and early 1880s. Stewart Headlam, an Anglican priest, who sought a working-class audience, had to say in these years: "How much nearer to the Kingdom of Heaven are these men [the Secularists] . . . than the followers of Moody and Sankey."<sup>3</sup> The Church-Darwin controversy, the development of anthropology, which, ironically, Christian missionaries stimulated, of archæology, and of historical criticism of the Bible had dangers for a theology which submitted itself to the rational opinion of each individual.

The answer to the problems of the monopolists was found in the turn towards a more reactionary form of theology, much closer to Catholicism than the Protestant thought of the earlier period. The new theology was transcendental. To link man to his distant God, the church as an institution was necessary; its priests acquired a new authority; its sacraments became essentials. The new emphasis in English Christianity was on authority and was mystical; it fought from the beginning the old liberal philosophy of man the master of his soul, the captain of his fate. It brought the warring churches nearer together, while Protestantism had ever divided them. This closing of the ranks, which we shall look at in a moment,

<sup>1</sup> Elliott-Binns, *op. cit.*, p. 103.

<sup>2</sup> Frederick Engels, *Socialism, Utopian and Scientific* (1944), Allen and Unwin, p. xxxi.

<sup>3</sup> Quoted, Elliott-Binns, *op. cit.*, p. 211.

was necessary for a class whose hold on power became ever less secure. Newman, one of the forerunners of the Catholic revival, expressed himself: "There was something greater than the Established Church, and that was the Church Catholic and Apostolic."<sup>1</sup> Catholic theology led to a Catholic sociology, developed as a remedy for the defects of Evangelicalism. A Methodist historian writes of "a new realisation of the Fatherhood of God (Transcendentalism) and therefore of the community of mankind."<sup>2</sup>

It is worth for a moment looking at those groups whom contemporary Catholic sociologists claim as their spiritual parents; they are three and significant: the Lakeland poets, Southey, Coleridge, Wordsworth, in their latest phase—one could, I suppose, loosely describe this point of view as that of the feudal socialism Marx castigated in the *Manifesto*;<sup>3</sup> the Oxford movement that was to produce Anglo-Catholicism, in particular Newman for his attack on "Liberalism": "The special political evils of the day have their root in that principle which St. Paul calls the root of all evil" (Mammon-worship);<sup>4</sup> Maurice and the Christian Socialism of the early 1850s, because "it was the doctrine of Maurice which for forty years kept the whole forward movement in the social and political life of the English people in union with God and identified with religion";<sup>5</sup> "the link between Church and people had been reforged in these years, and at the very point where the connection had grown weakest; it was never again broken."<sup>6</sup>

To many people Anglo-Catholicism has seemed a fad, and one with little real influence in the churches and still less on the working-class. This is a superficial and dangerous view. In fact, the movement has been the ideological spearhead of the reactionary movement which has affected in varying degrees all the English churches. Before 1900 all the Protestant churches had undergone a profound change, had moved closer to Catholicism. Wherever one looks, a new stress is found on the special functions of the priest, his "apartness," and on the observance of the sacraments. The stress is more and more on the Church as an organisation and on the "Church Catholic" over all. Already in 1878 an amendment was put to the Congregational Union Assembly: "Whilst this

<sup>1</sup> Quoted, Elliott-Binns, *op. cit.*, p. 103.

<sup>2</sup> Maldwyn Edwards, *op. cit.*, p. 97.

<sup>3</sup> Marx and Engels, *The Communist Manifesto*, Centenary Edition (1948), Lawrence and Wishart, pp. 36-7.

<sup>4</sup> Quoted in M. B. Reekitt, *Maurice to Temple* (1947), Faber and Faber, p. 53.

<sup>5</sup> Quoted, *ibid.*, p. 91.

<sup>6</sup> *Ibid.*, p. 91.

Assembly views hopefully every honourable effort to extend the terms of personal Religious Communion, it is of opinion that theological and co-operative fellowship, as between churches and any of their organised forms, can be made complete and useful only by the acceptance of a common doctrinal basis."<sup>1</sup> In 1892 Hugh Price Hughes, the Methodist, commented on the establishment of the National Council of the *Evangelical* Churches: "It is only in the comprehensive, many-sided life of a Catholic church that we can perceive the difference between the essentials and accidents of the faith."<sup>2</sup> In the three editions of the Methodist Hymn-book, 1874, 1904 and 1933, one section appears first as "Christian Ordinances"; it was new in 1874; in 1904 it has become "the Church"; in 1933 it has sub-headings on the "Communion of Saints" and on "Sacraments."<sup>3</sup> In the Church of England itself this century has seen the almost total defeat of the "Broad Church" movement and of its offspring, "Modernism"; the leadership of the church is in the hands of the Anglo-Catholics to such a degree that they have largely ceased to think of themselves as a separate movement within the church. Bishop Barnes in 1947 does little more than repeat arguments which before 1914 and even in 1921 had strong defenders within the church; to-day he is revealed as almost a lone voice. Increasingly the churches have worked together and thought together. The cry of a Congregationalist in 1878, "I dread when I hear about 'the Church.' I think of prelates, priests, tithes, law-books, sacraments and spiritual persons and orders. When I hear about the churches, the little households of Christ, my heart is uplifted,"<sup>4</sup> is little heard to-day. Not because the prelates and sacraments have gone, but because the "little churches" have seen the light, and all sections of the ruling class appreciate better the usefulness of "the Church."

The stress on the Church Catholic has led to a notable "closing of the ranks," which is paralleled in all the organs of the ruling class in the imperialist epoch. The first approach by the Church of England to Nonconformity, proposing "organic union," was made in 1886 and refused politely; the first approach to Rome was in 1894, and was renewed in 1921. Though neither of these unions have been achieved, a great deal of common work and conferences (1924, 1937 and since the war) has gone on; very recently the Pope

<sup>1</sup> Quoted in Albert Peel, *op. cit.*, p. 270.

<sup>2</sup> Quoted in Maldwyn Edwards, *op. cit.*, p. 157.

<sup>3</sup> *Ibid.*, pp. 78-84.

<sup>4</sup> Quoted in Albert Peel, *op. cit.*, p. 265.

has made a significant gesture. The "Free Churches" achieved a common Council in 1892; and within sect after sect this period has seen a process of unification. The first Methodist reunion took place in 1857, an important union in 1907 and the climax in 1932. Presbyterians united in 1876, Baptists in 1891. To-day the Baptists and Congregationalists are seriously discussing fusion.

Exchange of pulpits and common Christian pronouncements in the Press are far more usual than the more typical nineteenth-century mutual denunciation of the sects. As in other spheres this has led to the churches as a whole becoming integrated in the state machine. As the programme of the Communist International, adopted in 1928, pointed out: "State power, which is becoming the dictatorship of the finance-capitalist oligarchy and the expression of its concentrated might, acquires special significance for the bourgeoisie."<sup>1</sup> In the armed forces priests of all the churches, not merely the Church of England, are given posts; whenever the bourgeoisie requires a dose of "holy water" for its policies, all the churches unite in National Days of Prayer. The peculiar religious code of English state schools has given all the churches since 1870 a finger in the pie; though Roman Catholics may demand more and the Church of England sometimes echo them, the Nonconformist churches lost their independence when they surrendered their schools; they find themselves, as the syllabus changes, led nearer and nearer to a Catholic religious teaching. The B.B.C. is open to all denominations, in so far as they fall in with the dominant trend. These things become hard to surrender; the vaunted independence of Nonconformity is vanishing in fact.

One reason why Marxists in this generation have paid little attention to the English churches may well be because of the decline in church-going and a consequent belief that the hold of religion is lessening. Let us look closer at this. We have seen that according to the 1851 religious census only 25 per cent. of the population attended church. The next thirty years of religious revivalism had some effect: various private censuses in 1882 revealed a church attendance of 23 per cent. in Sheffield, 24 per cent. Nottingham, 26 per cent. Liverpool, 31 per cent. Bristol, 38 per cent. Southampton, 41 per cent. Hull and Portsmouth, and 52 per cent. Bath. London, with its 18 per cent. in 1902-3 (a drop from 1886), was abnormally low.<sup>2</sup> The influence of religion

<sup>1</sup> *The Programme of the Communist International* (1932), Modern Books, p. 5.

<sup>2</sup> Canon Roger Lloyd, *The Church of England in the Twentieth Century* (1946 and 1950), Longmans, Green and Co., Vol. I, pp. 59-60.

was considerable in the 1880s and 1890s and very marked on leaders of the labour movement, the revolutionary as well as the older leaders; Tillet always admired Cardinal Manning enormously, and even Tom Mann nearly became a parson! Snowden stated in 1912 that he became a socialist because of a series of Methodist articles he had read twenty years earlier. No wonder the introduction to *Lenin on Religion* comments: "In the early days of the labour movement the mass of workers turned away from religion. . . . Later on, however, this sturdy secularism of the labour movement began to deteriorate."<sup>1</sup>

The importance of the religious revival of the 1880s and 1890s is precisely in the stamp it has left on the modern mass working-class movement, on socialism in England. It is not by chance that Attlee in his book attributes to the Bible the strength of English socialism,<sup>2</sup> and that the 1945 Labour Cabinet had a greater number of avowed members of the Christian Church than a Conservative Cabinet has seen for decades. The "socialism" which has so far swamped Marxism among the masses in England is not that of Fabian intellectuals, but the religiosity of the old I.L.P. leaders, a moral fervour which has come from the churches, though no longer of them. Underwood, in writing the history of the Baptists, commented on the formation of the I.L.P. in 1893: "It was no accident that thereafter the Baptist churches of Bradford lost scores of members and adherents";<sup>3</sup> they left the chapels, but retained much of their outlook. Labour churches, socialist Sunday schools and socialist catechisms (even Marxism was presented in this form) are suggestive of the domination of religion in the labour movement before 1914. Of this non-clerical, ethical outlook, Lenin has said: "Instead of deducing their ethics from the commandments of morality, from the commandments of God, they deduced them from idealistic or semi-idealistic phrases which in substance were always very similar to divine commandments" and of "'moral' (a word much more suitable for duping the people than 'clerical')." <sup>4</sup> The Church of England in 1945 believed that: "from 10 per cent.

<sup>1</sup> *Lenin on Religion*, Little Lenin Library, Vol. 7 (1940), Lawrence and Wishart, p. 5.

<sup>2</sup> C. R. Attlee, *The Labour Party in Perspective*, Victor Gollancz, pp. 27-8. cf. *The Times* of Saturday, June 3rd, 1950, for report of a speech by Morgan Phillips to the International Socialist Conference, headed: "British Socialism: Methodist not Marxist."

<sup>3</sup> A. C. Underwood, *A History of the English Baptists* (1947), Baptist Union Publication Dept., p. 255 (footnote).

<sup>4</sup> *Lenin on Religion*, pp. 56, 27.

to 15 per cent. of the population are closely linked to some Christian church; 25 per cent. to 30 per cent. are sufficiently interested to attend a place of worship upon great occasions; 45 per cent. to 50 per cent. are *indifferent to religion, though more or less friendly disposed towards it*; while 10 per cent. to 20 per cent. are hostile."<sup>1</sup> The drop from 1900 has not been so very great, if we accept these figures, and the enormous numbers who have not severed the umbilical cord make a study of the churches still important. The absence of a strong rationalist, anti-clerical tradition from the modern English working-class movement is surely significant.

For these reasons the development of Christian sociology in modern England is a subject which Marxists should not neglect. The very dates are noteworthy: in the week in which the last Chartist petition was presented, Charles Kingsley launched Christian Socialism; in 1884, the year the S.D.F. and the Fabian Society were launched, Stewart Headlam persuaded his communicants' guild that "the present contrast between the condition of the great body of the workers who produce much and consume little and of those classes who produce little and consume much is contrary to the Christian doctrines of Brotherhood and Justice";<sup>2</sup> in 1889, the year of New Unionism's birth, the Christian Social Union was launched, with men like Gore and Scott Holland at its helm.

The churches to varying degrees and at differing paces found themselves compelled from the 1870s onwards to reckoning with the working class as an organised force, which they could only influence if they approved its aims. In the 1870s Nonconformity supported the agricultural labourers against the farmers, but as yet without reaching beyond the bounds of radicalism; it was Arch's challenge to an Anglican bishop and the clergy more than his organisation of a class which they supported. In the 1880s the Congregational Union approves of the organising activities of railway workers—still from the radical viewpoint. In 1885 the all-time wonder of composite resolutions reveals the tensions: "This Assembly, while deprecating all action that would lessen the sanctions of the rights of property, and recognising the conditions which at the present time control the markets both of labour and material . . . calls upon every Christian man and woman to remember that the

<sup>1</sup> *Towards the Conversion of England* (1945), report published by the Church Assembly, p. 3, footnote.

<sup>2</sup> Quoted in Joseph Clayton's *The Rise and Decline of Socialism in Great Britain, 1884-1924* (1926), Faber and Gwyer, p. 50.

so-called laws of trade and economics are not the only rules which should direct the transactions of manufacturers, traders, labourers and purchasers."<sup>1</sup> During the miners' strike of 1893 the Congregationalists moved right over; their resolution "desires to bear testimony to the ethical principle that the rights of humanity must always take precedence of those of property. It declares that alike mining royalties and profits made out of the labours of men receiving wages inadequate for the support of themselves and their families are obviously inconsistent with righteousness and fraternity."<sup>2</sup>

Hugh Price Hughes, in the 1895 election for the L.C.C., wrote an editorial in the *Methodist Times*, headed "City of God or Tammany Hall—which?"; he too attacked the coalowners and employers' federation for their hostility to trade unions. His most popular sermons were "Jesus Christ and the Masses" and "Christ the Greatest Social Reformer"; his book, *Social Christianity*.<sup>3</sup> The Methodist Hymn-book most clearly exposes the change in the emphasis the church was making: in 1874 there were seventy hymns on "Death, Judgement and Heaven"; in 1904 they were reduced to twenty-eight. For "Heaven" was substituted the "Future State" as a heading. "His Kingdom" became "His Kingdom on Earth," and there were many new sections of hymns on "Service and Influence," "Philanthropy and Temperance," etc.<sup>4</sup>

During the period of Imperialism before 1914 it was possible to fight like this for certain concessions without overthrowing capitalism: the churches in this period paralleled the function of Social Democracy. Gore said at the Pan-Anglican Congress of 1908: "We must identify ourselves with the great impeachment of the present industrial system . . . we must identify ourselves, because we are Christians, with the positive ethical idea of socialistic thought."<sup>5</sup> And William Temple, writing at the same time: "The alternative stands before us—Socialism or Heresy; we are involved in one or the other."<sup>6</sup> The Methodists, led by Keble in 1905, created the Wesleyan Methodist Union for Social Service, in reality a socialist ginger group.

But the general crisis of capitalism made the tactic of Reformism difficult, and in the churches too new measures were required. It is no accident that in the 1920s the Anglican Church fled from

<sup>1</sup> Quoted in Albert Peel, *op. cit.*, p. 300.

<sup>2</sup> Quoted, *ibid.*, p. 332.

<sup>3</sup> Maldwyn Edwards, *op. cit.*, Chapter 9.

<sup>4</sup> Maldwyn Edwards, *ibid.*, pp. 78-84.

<sup>5</sup> Quoted, Reckitt, *op. cit.*, p. 146.

<sup>6</sup> Quoted, *ibid.*, p. 151.

Modernism back to Catholicism, that by 1920 the Christian Social Union had become the Industrial Christian Fellowship, surrendering to the traditional Christian social service ideas, that in the 1920s different bodies of socialist clergy and laity within the Church of England ceased to function. In 1926 the W.M.U.S.S. closed down.

The new Catholic sociology, whose roots were in the frustration of the 1920s, came to flower in the 1930s and 1940s; for boxing for a points victory, never for a knock-out, it substitutes shadow boxing. Its real purpose, as of all ideologies used by a ruling class in decay, is to spread defeatism and despondency amongst the rising class. It is more effective than Spengler or Sartre in doing this because it has in fact roots in the history of England, similar to those fascism found in Italy and Nazism in Germany. Its argument is elementary, though spread through "profound" works: it emphasises man's own incapacity to solve his problems without God's help; it preaches "the sacraments . . . are the theology of the common man"<sup>1</sup> and "Over against the dissatisfied 'Acquisitive Man' and his no less evil successor, the dehumanised 'Mass-man' of our economically focused societies, insecurely organised for time, Christianity sets the type of 'Eucharist Man.'"<sup>2</sup> Again and again in every kind of Christian writing to-day the theme is taken up: "Humanism the Age-long Lie."<sup>3</sup> The Church of England of 1945, in *Towards the Conversion of England*, makes this its central theme: "in the medieval period this false view of life (which sees in man the source of all meaning and value, instead of God) was actively challenged," but since the Renaissance it has reigned supreme; now all its fruits are condemned by the Church of England. Now they rejoice because "the prevailing condition of disillusionment (in the myth of human progress) . . . presents a field of opportunity."<sup>4</sup> I cannot detail the practical steps for Christian work recommended, which aim at in fact heightening the disillusionment and withdrawing from the real battle, save to comment that the organisations proposed are varied and efficient and include "cells" modelled on Communist experience.

In fact, the church has come full circle, and its leaders are not only drawing nearer to Rome but willing openly to collaborate on the basis of an Anti-Communist Crusade, thus fulfilling in England

<sup>1</sup> Rev. D. M. Mackinnon, quoted, Lloyd, *op. cit.*, Vol. 2, p. 108.

<sup>2</sup> Dom Gregory Dix, quoted, *ibid.*, p. 109.

<sup>3</sup> Heading in *Towards the Conversion of England*.

<sup>4</sup> *Ibid.*, pp. 7, 15.

the function Roman Catholicism plays in Europe. It is the task of Marxists to understand this, to expose it and to mobilise rank and file Christians against it, before this "new" reactionary theology and sociology obtains any great hold. In doing this we must remember that there is a latent Protestant tradition of the "little churches," of revolutionary bourgeois democracy, to be drawn on: a tradition with all the weaknesses of bourgeois liberalism, but nevertheless one which parallels the liberal hostility to anti-democratic political measures in its hostility to all forms of theological and political reaction.

*Rhine or Reason: A Critique of E.S.P.*

BY JOHN MCLEISH

*Dr. J. B. Rhine's experiments in extra-sensory perception—a more carefully-phrased term for one form of what is called telepathy—have not only secured wide publicity through his books and articles, and those of other workers and popularisers, but through Dr. Rhine's recent broadcast. The importance of the case for telepathy is not merely that certain data require an explanation that is not apparently yet forthcoming but that it is claimed that the data, once established, do quite definitely refute, experimentally, the materialistic view of man. To use Dr. Rhine's own words:*

*“Why are we interested in exploring this area of psychic experiences? Because they may give us new suggestions about the nature of man and his powers. Suggestions that will help us to place them more intelligently in the system of what we know as the universe. . . . To explain these happenings would seem to require quite another order of reality than our conventional sciences of man have encountered. . . . It looks as if telepathy might be the answer to materialism. . . . Man's place in nature is not wholly to be found within the scope of physical law—the materialistic view of man has been experimentally refuted.”*

EDITOR.

FOR some months we have been regaled by the popular Press and B.B.C. with reports and demonstrations of “telepathy” and “clairvoyance.” The interest in psychic phenomena has reached the dimensions of a craze. There appear to be signs of a regular cult developing, a cult which acknowledges J. B. Rhine, Professor of Psychology at Duke University, as high priest or chief adept. Experimental findings are interpreted in such a fashion as to suggest that what have previously been regarded as “superstitions” of past and present are vouched for by the latest findings of controlled investigation. Under the ægis of Professor Rhine, not only prophecy and immortality but those stories of spells and necromancy, regarded as survivals from a pre-scientific era, are given an air of respectability. A “successful refutation of materialism and its physical theory of the mind” (Rhine) has at last been provided. There is in fact something for everybody. At the same time there is no philosophical or other difficult nonsense to be understood; no elaborate apparatus or complicated theories are

required. In fact, a pack of ordinary playing cards, or a handful of halfpennies, or even the dice from a game of snakes-and-ladders, together with a considerable amount of patience—these are all that one requires to refute the extravagances of the materialist for oneself. At least, according to Professor Rhine.

It is clear from the references made to materialism that Rhine takes a peculiar view of modern materialism—that, in fact, he is fighting a man of straw which he has constructed because of his misunderstanding of the development of philosophical thought. He is enmeshed in the Cartesian dualism, the view of man as a “ghost bearing up a corpse,” which Professor Ryle has recently shown rests on a misunderstanding and which is rejected by modern materialism. Many people would hold that the influencing of one mind by another, which Rhine takes as the refutation of the materialist, is in principle *not impossible*, and indeed according to Marxist materialism is highly *probable* at some stage of mental evolution. The concept of “integrative levels” and of emergent qualities according to some materialists would enable us to forecast that such a development is inherently possible, although it does not enable us to say that such a stage has been reached or when it will be reached. If therefore we subject Rhine's claims and conclusions to a close examination, it is not because his views are inconsistent with materialism, but rather because the form in which they are expressed strikes at the roots of psychological and other scientific experimentation. Rhine and his associates open the door to all sorts of incalculable forces, and his theories make the practical procedures of the scientific investigator in large part meaningless. The fashionableness of E.S.P. in scientific circles in Britain to-day represents a form of intellectual *hara-kiri* symptomatic of a loss of nerve.

Limitations of space make a thorough examination of his procedures impossible at the present writing. All that will be attempted is to describe the *kind* of investigation carried out at Duke University, to point out possible flaws in the experimental set-up or in the logical evaluation of the results, to suggest alternative explanations of these results and the limitations and qualifications that should be made on the generalisations which have been suggested. The psycho-kinetic (P.K.) phenomenon will not be dealt with, as it is of little psychological interest, and an adequate treatment would entail a long digression.

These points should, of course, have been covered by Rhine him-



self in the several books he has produced for popular consumption. It is customary in reports of scientific investigations to indicate the points of disagreement and to discuss these in an objective fashion. One looks in vain, however, in Rhine's books for the point-by-point discussion of the alternative views of particular experiments which have been put forward with considerable fire in the literature devoted to these problems. Those cautions and qualifications which should accompany sweeping assertions about the nature and destiny of man are absent. It is admitted that these reports are intended to have a popular appeal, that they are directed to the great public rather than to those most competent to judge them. But more caution rather than less is needed in such circumstances. The competent judge can insert his own qualifications and can judge the evidence at its true value, so that the popularisation of Rhine's results in this form can only be regarded as an appeal to the people over the heads of his professional colleagues—moreover, a calculated appeal to popular prejudices.

In these reports of the twenty years of work on the problems of "para-psychology" it is often impossible to reconstruct the experimental set-up from the descriptions given of it; alternative hypotheses, if they are mentioned at all, are considered from the standpoint of the whole series of investigations, or from the point of view of particular experiments for which they were not intended. We are presented with evidence which has to be accepted in an all-or-none fashion. We find particular instances used illicitly to prove the general case for telepathy; there is, in fact, a general lack of scientific caution. It is obvious from Rhine's best known works as well as from his earlier writings that he came to the subject with his mind already made up: this is not perhaps a serious flaw, since many previous investigators of these problems have also held strong views prior to their investigations. But it is a serious flaw in Rhine's work that, as I hope to show, his experimental method is such that it *must* produce the phenomenon of extra-sensory perception for which he is looking. His implicit bias is such that negative results can be accommodated almost as readily as positive ones. There is a process of statistical mystification which would appear to have blinded Professor Rhine as well as many of his readers to the realities of the case. The explicit bias shown in the "demolishing" of the physical theory of mind and of "materialism" is less harmful than the implicit bias found in the interpretation of scores.

*The Construction and Evaluation of an E.S.P. Experiment*

The main contention of the Duke University investigators is that we are capable (at least, many of us are) of acquiring information about the world around us and the thoughts of the people in it independently of the known senses. This is the so-called *extra-sensory perception*, or E.S.P.

There are two ways in which E.S.P. can operate to give us information from without according to these investigators. In the first, our minds make direct "contact" with someone else's mind. This is telepathic communication—that is, the direct influencing of one mind by another. A second way, which is to be distinguished from telepathy, is where our mind is directly influenced by some object or situation which is *not* transmitted to us through the medium of another mind. This is clairvoyance, in which we have immediate information by means of some kind of interaction between our minds and outside matter, an interaction which does not require the mediation of our senses. These two ways of knowing are taken to have been demonstrated in an unequivocal fashion by a long series of experiments.

In these experiments special cards are used—they are called the E.S.P. cards. In a "deck" there are twenty-five cards, five each of five different cards. Ordinary playing cards are not used because of difficulties associated with the fact that there are cards of different suits, which introduces complications of scoring "rights" or "wrongs." The E.S.P. cards use quite different symbols. These are engraved representations of a *square*, a *circle*, a *cross*, *wavy lines* and a *star*—five cards of each kind. The backs of the E.S.P. cards resemble ordinary playing cards: there is a design of interweaving lines.

In one of the experiments the experimenter takes a well-shuffled deck of E.S.P. cards, selects the top one and concentrates on the symbol while the subject, perhaps sitting opposite, or lying down in the same room, attempts to "get" which of the five symbols the experimenter is looking at. The card and "guess" are compared, the number of correct guesses being recorded.

This procedure has been developed by investigators of psychic phenomena who in this fashion have succeeded in devising a repeatable technique. It represents an attempt to *control* the phenomenon to be investigated, to remove from it the arbitrariness of the single experience and to allow of the application of statistical tests.

The logical basis of the evaluation of the results of this kind of experiment is rather difficult to understand because it is based on conceptions of *probability* instead of on those of *certainty* used in deductive reasoning, the latter being a type of reasoning with which most people are familiar intuitively, if not formally. The interpretation of the score—that is, the number of “hits” made by the subject—rests on the application of a test of significance. For example, with one “run,” or series, of twenty-five cards, the most frequent score (assuming that the subject is guessing, with nothing to go on but the knowledge that there are twenty-five cards and that there are five of each kind) should be five. But there will be fluctuations. With a large group of subjects, for example, some will be “lucky,” some will be “unlucky.” In other words, the former will get more than five correct, the latter will get less than five. With repeated trials of this kind, or better, with repeated trials using the same subject, the average score *over a long series of trials* should be five correct. Theoretically this will be the case *only* provided an *infinite* number of trials were carried out, and that the “guesses” were pure guesses, with no contaminating factor such as E.S.P. or those other factors mentioned below. In practice, therefore, since it is impossible to do an infinite number of series, the average will usually deviate either above or below five. This deviation could be due to one of two things. Either chance factors are at work (meaning that the fluctuation is due to the experimenter only having done a finite number of trials) and the deviation is purely fortuitous, or there are factors other than chance operating to distort the result. The tests of significance used in the evaluation of experiments of the kind described have been devised to enable us to calculate the probability (or “odds”) of the deviations we obtain empirically arising as a result of chance fluctuations—that is, as a result of the operation of good or bad “luck.”

Thus the procedure is only capable of proving a *negative*: it can dispose of the theory that a particular group of results arose by the operation of chance alone. Actually, it is not capable of “*proving*” even that, in the ordinary sense of the word “proof.” This is where the element of confusion arises. The test of the result only allows one to say, on the basis of certain statistical *conventions*, whether it is extremely unlikely, or whether it is unlikely, or whether it is probable that a given average score is the result of guessing. And, furthermore, it enables one to state the unlikelihood or probability in mathematical terms—that is, numerically. To

take a homely illustration: suppose a bookmaker should offer odds of 1,000,000 to 1 against a certain horse winning a race. (It is assumed that the bookmaker is sane and that the horse will actually run.) It is fairly obvious that he must be “*certain*” the horse cannot win. Suppose that he offers odds of 1,000 to 1; it is clear that he is still very sure, but less “*certain*” than he was previously. Odds of 100 to 1 would mean that he was pretty sure. The question arises: where do we draw the line which marks off certainty from doubt? What odds indicate that the bookmaker is not sure? Obviously the answer depends on our knowledge of the particular bookmaker and the way in which horses’ performances in races usually compare with the odds given against them. In other words, it is going to become a matter of individual judgment where the line will be drawn in particular cases.

This is unsatisfactory in scientific matters: there must be some kind of agreement about where lines are to be drawn. It is therefore a scientific *convention* that, in most cases, the line is drawn where the odds are between 20 to 1 and 100 to 1 against chance. If the odds are 20 to 1, this is taken to mean that the differences (whatever they may be) between the *expected* result on a chance hypothesis and the *actual* result indicate the presence of a disturbing factor or factors. This dividing line of 20 : 1 is purely arbitrary, and indeed, where anything of importance hangs on the decision we make, we may demand a much higher level of probability. Odds of 20 to 1 are very often interpreted as meaning that it would be worth while to repeat the experiment or observation—that is, that no clear demonstration of the operation of extra-chance factors has been made. Sometimes 100 to 1 is preferred, and in most cases 1,000 to 1 against chance would be regarded as an acceptable criterion.

But even in the latter case it is important to notice that there is no way of *proving* that the particular case we are dealing with in our test is *not* that one case in 1,000 which would arise by “pure chance.” This is a difficulty which underlies all inductive reasoning: that we cannot compass all the individual cases. The second point to notice is that we have only proved a negative. The statistical analysis tells us *nothing* about the nature of the extra-chance factors involved. This is determined by the interpretation of the experimental conditions—an interpretation which is virtually independent of the mathematical analysis. The latter merely tells us that there is in all probability something there to be interpreted.

It is therefore necessary in an experiment on E.S.P. to exclude *every* other possible factor—otherwise we do not know if E.S.P. is operating or not should we obtain extra-chance results. This is the problem of experimental method. We have to be constantly refining experimental technique in order to exclude the various factors which are suggested from time to time as alternative explanations. *All* possible factors must be excluded from *every* E.S.P. experiment before the all-over total result can be taken as plausibly in favour of the suggested theory. If, later, another plausible explanation is given it becomes necessary to start all over again and repeat the experiments in such fashion as to exclude the alternative explanation, as well as all the others which previously had been excluded.

It should be obvious in the light of the above explanation that dogmatism about *positive* findings are out of place. In such an important question as telepathy or clairvoyance we are justified in asking for a refinement of experimental technique and a level of probability very much in excess of what is usually required in psychological experiments, and a degree of scepticism which would be out of place with regard to other questions would appear to be the correct scientific attitude towards supposedly positive E.S.P. results.

*Extra-chance Alternatives to E.S.P.: the Subject*

There has been a considerable volume of research of a scientific standard on problems of telepathic communication and related questions. The British and American Societies for Psychical Research have been busily engaged in investigating telepathy for many years—the former since its foundation in 1882. Many private individuals, in addition, have gone into this question between 1882 and 1930 when the Duke experiments were begun. The general consensus of opinion before Rhine made his startling claims would seem to be that the *majority* of cases of supposed telepathic communication could be attributed to deliberate fraud, or to mal-observation on the part of interested parties. Coover, the Stanford University investigator, came to a negative conclusion after a long investigation under laboratory conditions (1917), and until his death resisted all attempts by others to “cook” his results.

For the psychologist, the interesting point that emerges from a study of the pre-Rhine investigations is the number of ways in which the human and animal subjects could obtain information

in fashions unknown to the experimenter, in what was thought to be a controlled situation.

As far back as 1853, Michael Faraday, the renowned scientist, demonstrated the mechanism underlying the turning-tables and ouija-board demonstrations of the seances. He showed that subjects in a suggestible condition because of the conditions of the seance, made small involuntary movements in a direction which could be suggested by the medium or by the group. This was an important demonstration in the history of research into psychic phenomena, since these unconscious, involuntary muscle movements have been demonstrated to be at work in a number of situations. Many supposed “telepathic” performances depend on the cues or clues presented by these movements. In the so-called “willing game,” for example, the receiver, who is in physical contact with one of the “senders,” is guided to the hidden object by such cues—very often with neither “sender” nor “receiver” being aware of how it is done. The famous “mind-reading horse,” Clever Hans, investigated by Pfungst, was found to be able to do complicated mathematical calculations because he could catch the tiny involuntary relaxation of tension and of concentration made by his owner-trainer, Mr. von Osten, as soon as the horse had tapped out the correct answer. Incidentally, these muscular relaxation cues had been missed by a former commission of enquiry, the members of which had actually been looking for some such mechanism. Beulah Miller’s telepathic feats, reported by the Society for Psychical Research, were probably performed in the same fashion. The Creery sisters, considered in 1882 to be unimpeachable evidence for telepathic communication, had greater success when their father was in the group of “senders” and so situated that they could see him “sending.” The confessions of fraud later obtained in this case, of course, invalidate the conclusion so confidently maintained in 1882.

As a result of this research, *any* experiment on telepathy in which the subject is able to see the “sender” must be immediately suspect since—it must be emphasised—the muscle-movement cues can be operating although neither sender nor receiver is conscious of them. There need be no trickery nor collusion. When we remember that it is necessary for only one card in twenty-five to be given in this way (or in any other way or combination of ways) in twenty runs through the E.S.P. cards to get a highly significant result, it is obvious that an important criticism of part of the Duke evidence

is that it is based on exactly this kind of situation. The degree of caution necessary in this respect is shown by the fact that Katz maintains that McDougall's "Lamarckian" experiment must be taken as invalidated by the fact that in the crucial experiment—where the rats had to choose one particular exit from a tank of water—the rats could see McDougall!

We are all familiar, at least from fiction or the cinema, with the methods of the "card-sharper" in marking his cards beforehand. Certain minute marks—the marks produced by use, for example—can act as cues. The important fact in relation to Rhine's and other experiments with cards is that the cues can be "subliminal," or, in other words, the subject may make use of such marks without actually being aware of their existence, and even if told he were making use of such cues would be unable to spot them or to put them into words. It is by this mechanism of subliminal cues that certain psychologists explain the operation of "intuition" in everyday life. When we have a "feeling" about someone it is probable that we are responding to some small element, such as a particular shape of nose, or some mannerism of voice, etc., without being aware of the nature of the stimulus which makes us respond to that person as we do. The same explanation takes the mystery out of the so-called *déjà vu* experience—that is, the feeling of having been there before—which is canvassed as evidence for precognitive clairvoyance.

That this point about visual cues is an important criticism of the Duke investigations and not just a hypothetical reconstruction is brought out by the fact that the first batch of E.S.P. cards on sale to the public had to be withdrawn by Rhine because, in certain conditions of lighting, it was possible to read the symbol through the back of the card. These cards were rather like the copper plates produced by some etching processes. The design is etched with acids on the front, but in certain lighting conditions the design can be seen also on the back. Where the symbol on the cards is not visible, other indications may suffice—tiny differences in the design on the back, etc. It should be the rule in E.S.P. experiments that "naked" cards are never exposed in the presence of the subject; but this rule was continually violated in the experiments at Duke.

Another source of error in this type of experiment was discovered very early by research workers, although the lesson has still to be applied by some. In these experiments it was found that when the

sender and the receiver were in the same room remarkable extra-chance results could be obtained, but when they were put in different rooms the results fell to a chance level. In one famous study the receiver had been hypnotised, which suggested the explanation summed up in the words "unconscious whispering." It was suggested that the subject, as a result of hypnosis, was in a condition of hyperæsthesia with regard to hearing. This condition is a well-known associate of the hypnotic trance, in which minute sounds can be readily heard, although they may be quite inaudible to ordinary hearing. The theory of "unconscious whispering" is that the "sender," in concentrating on the message, unconsciously or inadvertently makes small movements of the throat-muscles and other organs of speech and actually whispers the name on the card or the other material to be "transmitted." Stated baldly, the explanation may seem implausible, but the mechanism has actually been demonstrated at work in experiments on telepathy. Kennedy, formerly Fellow in Psychical Research at Stanford University, blindfolded naïve "senders" and placed amplifiers in front of them while they concentrated on the message. The whispering was clearly established. Again, it is important to remember that only a small number of "hits" need to be accounted for as the result of subliminal cues to invalidate the E.S.P. hypothesis. Naïve observers are quite useless as controls on this mechanism—the movements may be quite invisible, there is a demonstrable fluctuation of attention which could allow the whisper to slip past unnoticed, and the acoustics of the room may be such that the observer is placed unfavourably for the reception of the cues whereas the subject may be in a favoured place. The fluctuations in the ability of different E.S.P. subjects can be plausibly interpreted in the above fashion. Involuntary changes of breathing can also serve as an unnoticed clue. The newspaper reports of telepathic demonstrations illustrate the uncritical behaviour of a certain kind of "observer," as the failure to publish alternative explanations demonstrates the uncritical acceptance of telepathy and clairvoyance and other "psychic" phenomena.

Dr. Soal, an English mathematician who has carried out a very painstaking and scientifically controlled investigation of telepathy, using a method similar to that of Rhine but free from many of the defects of the latter, although recognising the possible operation of some such mechanism as "unconscious whispering" or changes in breathing, failed to take the precautions necessary to

exclude this factor except for warning the agent about it. Soal's work is of interest since he failed to verify the operation of E.S.P. in the fashion reported by Rhine, but on a re-analysis of his experimental data found evidence for what is called pre-cognition and post-cognition. This is the tendency for the subject to guess the card in advance or behind the one being looked at by the experimenter. This tendency is probably to be explained by the differences in experimental technique which involve timing differences, rather than from the theory of subconscious time-lag or discrepancy favoured by Dr. Soal. Other English investigators have observed this phenomenon of "pre-cognition" while failing to verify cognition of the actual card. It should perhaps be pointed out that in the case of Dr. Soal only two subjects out of a much larger group (160) exhibited this phenomenon, and in both cases only under very special conditions. An account of his later experiments with the first of these subjects (*News Chronicle*, November 28th, 1949) suggests ample opportunity for the operation of the mechanism of unconscious whispering. The atmosphere of informality of these experiments amounting to what could be described as a buzz of confusion, and the absence of the necessary critical attitude on the part of the "observer," means that no definite conclusion can be drawn. A closer examination of the experimental set-up would be necessary before Dr. Soal's results can be accepted as evidence for the E.S.P. hypothesis, especially in view of the fact that only two of his subjects—working in their own home or studio—exhibited the ability to guess the cards in a fashion better than chance would suggest.

In the Rhine experiments, and in any experiments on this topic, there is always the possibility of deliberate fraud—it is one factor which can never be ruled out. Of course, there is no suggestion that there is fraud on the part of the *investigators*, although there is at least one oblique reference to such a case in the recent literature—not of a Duke University research worker, it should be said. But one cannot eliminate the possibility that *some* (not necessarily all) of the subjects could be "pulling their legs" in some ingenious fashion. There have been many suggestions of fraud in the literature of this subject, even in the case of highly sophisticated experimenters. The Creery sisters previously mentioned used an ingenious system of signals which escaped observation at the time, while the weekly exhibitions of the Piddingtons (who do not, of course, explicitly claim telepathic powers and whose methods are

well-known to the theatrical and magical fraternity) illustrate the ingenuity of those who care to put their minds to the problem of deception. Harry Houdini has demonstrated the methods used by fraudulent mediums, while his colleague, Golding, has taken us behind the scenes in the case of those stage performers who "read minds" for a living.

*"Pure Telepathy" and Its Problems: the Experimenter*

So far we have been considering only cases where, as Rhine points out, the experimental method is not testing "pure telepathy," but may be testing clairvoyance instead, or as well as, telepathy. There is the possibility in these experiments that the "receiver" is in direct communication with the *cards* instead of with the mind of the experimenter who is concentrating on them. (The direct communication in Rhine's view is not of the kind I have suggested—that is sub-liminal visual cues—but of the "extra-sensory" variety.)

To test the theory of "pure telepathy" one must abandon the use of material of any kind; that is to say, the material to be transmitted must be entirely mental. The experimenter *thinks* of particular cards instead of *looking* at them. This brings up another type of problem concerned with the mind of the experimenter and of the subject.

If you ask a large number of people to think of any number between zero and twenty, you will soon find that there is a tendency to select one near the middle of the range given. The numbers at the extremes are avoided. This means that one and twenty and certain others near the two ends do *not* have an equal chance of being chosen, compared to the remaining numbers. Suppose now, without being aware of this tendency, you do a long series of "telepathic" experiments where you, as sender, think of a number between given limits (the limits being known to the subject or "receiver," whose task it is to guess which number you are thinking of), you will get results which will surprise you—if you do the experiment often enough. If you fail to provide that *every* number in the given range appears an *equal* number of times, and the subject has the same mental preferences as yourself, you will almost inevitably get an extra-chance result. If you are simple enough you will put this down to the operation of "pure" telepathy. The correct explanation could be, for example, that you are both

superstitious and avoid the number 13, and perhaps think of a disproportionate number of threes and sevens and other "lucky" numbers, thus increasing the probability of hits on the latter. This, together with the tendency to avoid the extremes of the range, could produce a very striking extra-chance result.

The test of significance used in analysing the scores in such experiments, on the other hand, rests on the assumption that *all* items have an *equal* chance of being selected. The existence of similarity of mental habits and preferences is adequate to explain a number of cases of supposed "mind-reading" in the past, for example, the early work on the transmission of drawings or familiar objects or incidents. The well-known experiments of Upton Sinclair and his wife on "mental radio" are capable of being interpreted from the standpoint of similarity of experience and preference for certain designs, coupled perhaps with unconscious bias operating to accept as a "hit" what should not properly be accepted.

Professor Rhine attempted to control this factor by having his "senders" adopt certain precautions to ensure that *all* the cards would be thought of an equal number of times. But these precautions do *not* exclude the possibility of the sender having certain preferred systems or sequences which can be recognised by the subject. For example, systematic arrangements such as:

*star, star, star, star, star; cross, cross, cross, cross, cross; etc.;*  
 or *star, cross, circle, waves, square; star, cross, circle, waves, square; etc.*

would tend to be avoided and so would not have an equal chance of being selected. There are a large number of such systematic arrangements, but this objection is not a very serious one, since the systematic only form an extremely tiny fraction of the possible arrangements.

There is a much more important objection, however, which is that within *all* arrangements the experimenter may have certain conventions which he has adopted unconsciously in order to keep a mental grip on the material. He may have a number of unconscious mental patterns of choice. For example, if he shows a tendency to have, more often than not (say) *cross* followed by a prescribed number of other cards and then *star*—that is, *cross, another card, another card, star*—and the subject recognises this habit, it is going to inflate the number of "hits" artificially. Remember that

the subjects normally used were intelligent students, interested in the possibility of telepathy and perhaps anxious to prove themselves "good" subjects. They would be inclined to study the particular experimenter's habits, they would look for tiny clues—they might recognise particular preferences, without perhaps being able to verbalise the pattern. This would enable them to score more "hits" than they were actually entitled to score on a chance basis. It is also obvious that a good card-player might have a considerable advantage in knowing consciously or intuitively the kind of behaviour of such random sequences. Rhine's procedure, which consisted of testing everyone who was willing, and selecting those with high scores for further attempts, is obviously suited for picking out those who have a "nose" for cards (although they may never actually have played cards), just as much as it is suitable for screening off those with E.S.P. ability.

Another important source of error in all telepathy and clairvoyance experiments is the liability of the recorder of the "guessed" and the "actual" card to make mistakes in recording. Kennedy again has carried out an ingenious experiment which brings out very clearly the influence of bias on the recording of "hits." By the use of a questionnaire drawn up to measure the extent of belief in the possibility of E.S.P., he selected from a larger group, fourteen subjects who were strong "believers" and fourteen who were equally strongly "non-believers" in E.S.P. A series of experiments was then carried out, ostensibly to test the E.S.P. hypothesis, the twenty-eight subjects acting as recorders of cards and "guesses" corresponding to these. An analysis of the records demonstrated that the "non-believers" made a certain number of mistakes, the net result of which was in the direction *against* an extra-chance hypothesis. The "believers," on the other hand, made an *equal* number of mistakes in the opposite direction. A precaution which must be taken, therefore, is that the person making the record should not know whether the guess made is right or wrong. In many cases in the Duke experiments, the "sender" also acted as recorder.

In pre-Rhine experiments where this precaution was not taken extra-chance results have been obtained, whereas, using the same subjects and experimenters but with independent recording (the recorder not knowing the correct answers), the results have fallen to those which would be expected on a chance hypothesis. In many of Rhine's experiments the criterion of independent recording has

been violated so that the factor of *error* cannot be excluded as an alternative explanation of the results of these experiments. It is also obvious from his writings that there was often an almost apocalyptic enthusiasm surrounding certain experiments, which increases the liability to error. He suggests that an informal, or even playful, attitude to the experiment is the one best suited to the demonstration of E.S.P., and of course this approach is precisely the one best suited for the introduction of mistakes in recording. Excitement produces lapses of attention; expectation of a particular subject making a high score produces heightened suggestibility. These together or separately can result in the symbol on which the sender is concentrating being recorded by him instead of the one actually called by the subject.

In an experiment carried out to check this *a priori* possibility, it was found that in a series of 100,000 calls ninety-two recording errors were made. This, of course, does not seem a great number—but when we remember that the experiment was deliberately carried out to assess the number of mistakes and that the recorder was on guard to avoid *making* mistakes, it is clear that where this watchful attitude is lacking there are abundant possibilities of error which cannot possibly be corrected afterwards. Rhine's confession, that the more precautions that are introduced, the more the experiment becomes "unwieldy" and loses the attitude of play, the lower the score that is obtained, would seem to suggest the operation of this factor of involuntary recording errors. This is at least as reasonable an explanation as the one he gives—namely, that loss of "spontaneity" causes a cessation of functioning of E.S.P.

#### A Methodological Criticism

The use of cards as experimental material suggests a final observation with regard to methodology. I have been informed at fourth or fifth hand that Karl Pearson, after experimenting with playing cards, came to the conclusion that they did not behave in the random fashion expected of them. This point, of the non-randomness of ordinary card-shuffling, can be demonstrated apart from the great authority of Pearson by everyday experience. I have before me as I write a (1937) news agency report, quoting a statistician of the Galton Laboratory, University College, London, as saying that the odds against all four complete suits being dealt each to one of the four players in a game of whist are

2,235,197,406,895,366,368,301,560,000 to 1. To make this clear, this statistician had further calculated that the probability of this deal happening were such that if one thousand million players played every day 100 hands apiece (and 200 on Sundays), there would be one chance in 100,000,000 of four perfect hands turning up once in every 50,000,000 years. In fact, according to the same report, the dealing of the four suits in circumstances which preclude the possibility of joking or trickery, is reported on an average at least once a year.<sup>1</sup> This rather suggests that playing cards, at any rate, do not conform to the abstract conditions of the statistician, and indicates that it would be unwise to accept the ideal probabilities he calculates as applying to everyday situations, without a close examination to ensure that the assumptions he makes in constructing his tests are fulfilled by the material used in the investigation.

To sum up: in any impartial weighing of the evidence presented by Professor Rhine for the theory of extra-sensory perception the points mentioned above must be taken into consideration. The alternatives proposed do not explain *all* his results. It is obviously impossible to account for all the results of a series of diverse experiments, stretching over a period of twenty years, the explanation having to be constructed after the event and in the absence of complete and circumstantial details of procedure and results. But that there remains considerable doubt which should prevent an uncritical acceptance of the case presented by Rhine and his associates will, I hope, have emerged from the above discussion and the brief statement of alternative explanations.

The positive results of the protracted investigations of psychic phenomena over the last seventy years consist in the demonstration of the peculiarities of the human subject—the almost infinite capacity for self-deception due to the operation of suggestibility and the failure to appreciate the nature of the evidence provided by our senses. The elucidation of the sources of error summed up in the phrase "the human factor" has produced a healthy scepticism towards claims which, properly interpreted, result in the overthrow of the hard-won gains of scientific discovery, and strike a blow at scientific method itself.

<sup>1</sup> In 1937, for example, when this happened at a bridge tournament, the player with thirteen spades (a woman) recorded a non-vulnerable grand slam which scored 1,510 points. These calculations are tedious but verifiable. Should you be fortunate enough to be dealt thirteen spades within the year—the odds against this happening at all being 158,000,000 to 1, you should have an interesting time counting up the points to which you are entitled.

## “The Modern Quarterly” and Academic Freedom

THE fight for progress in the field of knowledge—that is, a fight inspired by the broad interests of humanity and proceeding on the basis of a scientific view of the world—has in recent months reached a new and sharper stage in the British universities. As a journal of Marxist thought primarily concerned with that fight, *The Modern Quarterly* must draw the attention of its readers to the issues which have arisen in this field.

For some time past, as a letter signed by non-Marxists as well as Marxists pointed out in the *New Statesman* on May 13th, there has been increasing evidence that university bodies have been discriminating against members of the Communist Party in making appointments.

As long ago as 1947, the head of one school in the University of London refused to support a candidate of outstanding reputation for a post for which he was eminently qualified on the ground that he would not be a party to “any further infiltration of Communists into university posts.” Other such cases have been reported from a number of other universities. Appointing boards who would not dream of enquiring whether a junior lecturer was Conservative, Labour or Liberal in his politics, have asked candidates point-blank whether they are Communists. Academic referees have, in sending forward their letters about an applicant’s high qualifications, taken upon themselves to add that he is a Communist. Heads of university departments have asked their colleagues to act as informers, i.e. to discover whether this or that candidate is a member of the Communist Party. The posts involved have been in all kinds of subjects—history, economics, science, language, literature, mathematics.

To readers of *The Modern Quarterly* it should not be surprising that such things occur. The advance of one-third of the human race to socialism, the emancipation of vast areas of the world from the yoke of monopoly capitalism, the triumphs of Marxism in branch after branch of man’s thought—these developments of recent years have made more stubborn and desperate the resistance of aggressive and reactionary finance capital in those countries where it still holds sway (of which, unfortunately, Great Britain is one). Its rage, its hatred of all things progressive, its double-dealing and unscrupulousness are communicated to all its menials and apologists—among them those in university cap and gown.

Yet recognising these things does not mean putting up with them. To acquiesce in the university witch-hunt would mean injuring the vital interests of British scholarship and of the British people as a whole

## “Modern Quarterly” and Academic Freedom

—which need the Marxist weapon of dialectical materialism, the fearless Marxist search for objective truth and combating of false, stagnant, reactionary ideas. Acquiescence would also mean covering up the hypocrisy of the servile dons who preach to others of liberty, while surreptitiously negating it themselves.

In this regard the case of Andrew Rothstein, lecturer at the School of Slavonic Studies of London University from 1946 to 1950, is of particular significance, since it is an example of the reactionary offensive in its most militant form—the campaign against truth about the Soviet Union. Andrew Rothstein, a Communist who has had exceptional opportunities to study the theory and practice of socialism in the Soviet Union, is an Oxford graduate well known for many years of lecturing and writing on that subject. In 1946 he was invited to take a temporary, one-year post at the School—notorious for many years before the war for its anti-Soviet teaching and influence—in order to lecture on Russian economic history, on Soviet political history since 1917, and on the institutions of the U.S.S.R. to the new post-war influx of students honestly anxious to learn the truth about that great country. In 1947 he was given a renewable three-year appointment to continue this work, under the title of “Lecturer in Soviet Institutions.” During the last three years his services have been drawn upon by the School and the University Senate in a number of ways which showed that his was not the usual probationary appointment customary for those beginning an academic career.

But during the last three years also the war campaign against the Soviet Union has developed in this country, under American dictation and with the zealous support of the obsequious servants of Truman and Acheson at Downing Street. University teachers and writers have been mobilised in large numbers to spread the Marshall-Montgomery gospel of hatred of the U.S.S.R. Andrew Rothstein has not fitted in. He exposed the “slave labour” lie in letters to the *New Statesman*, and sundry other anti-Soviet falsehoods in letters to *The Times*. His book, *Man and Plan in Soviet Economy*, set forth essential facts about the great role of the individual in building socialism. In this journal our readers have read other writings of his, unmasking false information and theories about the Soviet Union. In the School of Slavonic Studies, he encouraged his students of all political creeds and none to think and read for themselves about Russian economic history since 1800 and about Soviet institutions—a highly dangerous proceeding in this age of officially-inspired anti-Soviet falsifications.

The particular method used to get rid of Rothstein in these circumstances—refusal to renew his appointment on the nonsensical ground that his “scholarship” was inadequate—only brings out the more clearly the true issues involved. As such, they have been judged by a



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wide public, and no apologists of the University authorities will succeed in reversing them.

*The Modern Quarterly* repeats, however, that this scandalous case is a pointer to a much more far-reaching campaign which has been going on, in a furtive, cowardly and underhand fashion, in many British universities for many months. The furtiveness is easily understandable: how else could the apologists of British imperialism maintain their sanctimonious pretence of a particular "tolerance" and "freedom" in matters of thought, allegedly characteristic of the British ruling class? This cause is not only that of Marxists: every worker in the field of culture and science is directly affected. Nor is it only the cause of the "intellectuals": the working class, against whom capitalism uses corrupted intellectuals with increasing virulence, has a vital interest in taking the part of those who fight for academic independence.

For that very reason it is essential to be vigilant and to unmask the hypocrites, to take up cases of this political victimisation as they arise, and to fight academic obscurantism—a disgrace to the country of John Milton and Tom Paine, of Locke and Gibbon, Burns and Shelley, Darwin and Huxley, William Morris and Bernard Shaw.

## Reviews

*Studies in Ancient Greek Society: The Prehistoric Aegean.* By GEORGE THOMSON. Lawrence and Wishart, 2 gns.

THIS is a very important book both for ancient historians and for all who are interested in the historical development of our own society, thought and literature. In view of the mass of new evidence, archaeological and literary, which has become available to our generation, it is now imperative for anyone who claims that the Marxist analysis provides a guide to ancient history to re-examine Engels' account of the rise of the Greek and Roman state in the context of the prehistoric Near East as a whole. Professor Thomson has undertaken such a re-examination and assembled the material for others to draw their own conclusions. It was a difficult task, demanding knowledge of the findings of archaeology, anthropology and comparative linguistics, as well as of classical authorities. The fact that it has been attempted and carried through with so great a measure of success is testimony both to the vigour and organising power of Marxist ideas and to Professor Thomson's grasp and learning. The author is at a disadvantage in having to depend on secondary sources for the interpretation of archaeological and anthropological material; but this disadvantage is more than offset by an insight into the significance of pre-history which only knowledge of the later developments of Greek thought, as well as of Greek history, could give. It is this consistently historical approach which gives the book its great value and shows that Marxist method is not a mere trick of arrangement and emphasis.

The initial chapters of Professor Thomson's earlier book, *Aeschylus and Athens*,<sup>1</sup> gave a brilliant sketch of the development of Greek society from the tribe to the emergence of the city-state. The present volume presents the detailed evidence on which that sketch was based and fills in the picture. The case for the tribal basis of Greek society is made good, and it will be difficult for anyone who has read this book to ignore the evidence—in tradition, in religion, in the nomenclature of kinship, in land tenure and succession—for the existence of primitive communism as the historical basis of Greek society, and for its development along the lines suggested by Marx and Engels.

Again, the survival in the eastern Mediterranean area not only of matrilineal succession but of forms of matriarchy is established beyond doubt, and although Professor Thomson does not attempt, in the absence of the written Minoan evidence, any full investigation of these pre-Greek societies, he makes many suggestions which illuminate classical traditions; for instance, his explanation of the recurring tradition of a queen

<sup>1</sup> Lawrence and Wishart.

with a servile consort. A fuller account of the emergence of priest-kings in connection with the cult of a mother goddess would have been desirable, had it not been precluded by lack of the evidence mentioned above; but Professor Thomson's account of Athene is illuminating, and his explanation of the myths of Demeter and Persephone is both new and convincing.

On the crucial question of the emergence of class society he is less clear. The chapter on the Formation of Towns, based on Thucydides and Strabo, gives a masterly outline of the gradual break-up of tribal society in the village and of the stages which preceded the revolutionary step, the foundation of the *polis*. This is, however, a generalised account, and it is not clear how it is to be fitted into the historical context. The magico-religious kingship associated with the worship of a mother goddess almost certainly existed in some parts of pre-Mycenæan Greece. Was this everywhere as a result of Minoan influence or an independent development? How far had distinct classes emerged among the earliest immigrants into central and southern Greece, Lapithai, Tyroidai and the rest, or among the Achaioi, whose kings are recorded in the thirteenth century B.C.? Do the cities of the Mycenæan period and the distinct royal burials in the *tholos* tombs mean that a complete class society existed here, and if so, was it of the Minoan, Bronze Age type, or something new? Such problems are rendered more difficult by the constant migration of peoples in primitive Greece, which makes it hard to distinguish internal development from that due to immigration or conquest. The answers must probably depend upon further interpretation of the archæological evidence.

In the meantime, Professor Thomson has done much to fill in the blank period of the migrations by his use of Greek genealogies. This practice, which is in accord with his general attitude of conservatism in seeking always to explain rather than explain away ancient authorities, is open to criticism in that the interpretation of such evidence must be arbitrary, and that it is drawn from writers of very different periods and authority. The principles which are laid down here (p. 185) for the use of genealogical evidence are a safeguard against expecting too much from it, and the results achieved are, to the present reviewer, convincing.

The greatest value of the book for specialist students is the light which it throws on the history and productions of the classical period. Not only are specific problems of history, law, custom and religion solved; but the attitudes of later generations and, with them, the real connotations of common words are illuminated. In *Æschylus and Athens* Professor Thomson showed how the oppressed classes in Greece and Rome looked back to primitive communism rather than forward to a communism not yet on the historical agenda. Their Golden Age was in the past. The discussion of land tenure here, with its explanation of the

demand for redistribution as not revolutionary, but counter-revolutionary, throws further light on the inevitable weakness of ancient movements for reform. The discussion of matriarchy illuminates not only such legends as that of the Amazons or the Lemnian Women but the virulent attacks on women by writers of the fifth and fourth centuries B.C. This violence, commonly attributed to individual misfortunes in marriage, becomes understandable in the light of the reminder that the struggle of the sexes was one of the earliest forms of the class struggle. Again, the conceptions of *moira* (destiny), *luchos* (lot), *geras* (privilege), *dike* (the way of justice), *eunomia* (law and order) and others are filled out with their historical content and so contribute to the fuller understanding alike of Greek poetry and of Greek politics.

Greek traditions reflect various transitional forms between matrilineal and patrilineal succession, which Professor Thomson seems to interpret correctly; but such a phrase as "it may be, they are becoming patriarchal again" (p. 198) is misleading, since it suggests several complete revolutions in social organisation.

The last section of the book, entitled Homer, contains an amplification of an earlier lecture on the origins of poetry, now worked out into what may well be the first chapters of a scientific history of literature. What Professor Thomson has to say of the origins of Greek poetry in work-song and ritual, of its forms and rhythms, is relevant for all students of literature. His treatment of the "Homeric Question" is moderate and convincing, and the whole discussion of folk poetry and epic is creative criticism of a very high order. It should prove, to those for whom proof is necessary, that a historical understanding enriches appreciation of works of art.

Epic is revealed as the poetry of the emerging class struggle, and its development is sketched at the courts of chiefs, at religious festivals and under the patronage of merchant princes. The class forces behind these later developments are only indicated, being outside the scope of this volume. This necessity of arrangement is to be regretted, since it was in a setting of profound social changes that the Greek epics, as is argued here, took their final form.

Specialist students will find this book exciting, a challenge to the traditional classical discipline, which is still based on rhetoric, the correct use of words and ideas to convince, rather than on the spirit of enquiry. For a wider public it will do much to dispel the idea that Greek and Roman civilisation were something *sui generis*, isolated historical phenomena which are the peculiar inheritance of "Western civilisation." It restores the Greeks to their rightful place as real people, facing with the clear vision of men in a newly-born class society problems similar to those which confront us in its decay. This is to take the Greeks seriously and to bring their dynamic ideas back from private shrines into the market-place.

Nor should it be forgotten that, as an example of Marxist method in action, this book was written not merely to be *read* for the sake of its conclusions, which are provisional, but to be *used* as a tool of research in a living branch of science. One of the most significant tributes to Professor Thomson's earlier book came from someone who admired it, indeed, when he read it but did not find how valuable it was until he himself attempted to write a Marxist history of music.<sup>1</sup> Then he began to use *Æschylus and Athens* as a guide to research, went back to it again and again in his difficulties, saw deeper into it, and came to admire it in a new way. So it will be with this later book. Those actively trying to renew the study of the origins of civilisation in Europe will understand it best and get most from it.

N. M. HOLLEY.

*The Good Old Cause.* (History in the Making Series.) Edited by Christopher Hill and Edmund Dell. Lawrence and Wishart, 15s.

MOST of the great historians of the past, from Thucydides to Macaulay, have been keen politicians, some of them leading figures in the political life of their country and epoch. They have not isolated themselves from the affairs of their day but have made their historical investigations a part of their political lives, both justifying present action by past experiences and drawing on past experience as a guide to future action. In the present century there has been a tendency for some historians to withdraw from an uncomfortable world of class conflict and international war into isolation. The great development of the technical side of historical investigation has produced a curious breed of persons, editing texts with little consideration of the general significance of their content, dwelling minutely on tiny points of detail without linking them to the historical process of which they are part. This phenomenon is part of the general trend in the scientific world towards specialisation, towards a departmentalisation of knowledge—not merely because of an increased number of things to be known, but chiefly the result of an absence of unifying principles. It is a trend to be observed as well in other fields of culture. The specialist historian who holds himself aloof from politics (and usually from any coherent philosophy of history), also has his counterpart in the uncommunicating, incomprehensible poet, the novelist of purely personal emotions, the abstract painter.

There is another type of modern historian. While venturing to interpret historical events with a wider sweep than the mere antiquarian or archivist, he offers his conclusions as impartial on the pretext that they are unmotivated by political or any other form of bias. Such persons

<sup>1</sup> This was Dr. George Knepler, now Director of music in Eastern Germany.

in practice play as decided a part in modern politics as did their greater predecessors in their day. But to-day's historians operate, as it were, under cover. Present political issues are clear-cut as between socialism and imperialism, between democracy and reaction. But since capitalism and political reaction have little appeal to the mass of the people, it must be the object of reaction to blur the clear-cut issues. The "objective" historians are helping them to do this. One has only to count up the number of Oxford and Cambridge professors and dons who are placed before the microphones of the B.B.C. to say their piece for "Western" values, or to condemn some caricature of Marxism constructed by themselves for the purpose, in order to estimate their positive political contribution on behalf of reaction. Their unanimity might seem at first sight remarkable when one remembers the epic battles of the past between Whig and Tory interpreters of history. But fear of socialism is a tremendous leveller of any individuality among its opponents. Proof of this was recently provided with innocent complacency by one of the minor stars in the constellation of cold war propagandists: ". . . significant is the fact that the Whig Trevelyan and the Tory Feiling are so at one in their handling of events, and of men, down to very recent times. . . . Happy is the country whose major historians find so little to quarrel over."<sup>1</sup>

It need hardly be said that these people entirely lose their Olympian calm when confronted with history written by Marxists. This is well illustrated by recent reviews of *The Good Old Cause*. This impressive collection of sources does not merely illustrate the constitutional or the economic aspects of the great political struggles of 1640 to 1660, as previous collections have done. It aims to show the inter-connection of economic and social development, religious and political ideas, foreign and domestic politics, and draws upon official papers, pamphlets, private letters, diplomatic correspondence, even poems, in order to do so. It succeeds in this aim as no other similar work has done, and with an impeccable scholarship which even hostile reviewers are obliged to acknowledge:

"Yet the range of selection is competent, the knowledge of sources solid" (*The Times Literary Supplement*, March 3rd, 1950).

"It is a scholarly collection. The material has been widely sought and carefully selected" (*New Statesman*, March 4th, 1950).<sup>2</sup>

Since "scholarship" is normally the touchstone of all judgment by academic historians on each other's works, it may be asked why reviewers who allow so much, go on to attack the book as they do. With

<sup>1</sup> Mr. Max Beloff in the *Observer*, March 26th, 1950.

<sup>2</sup> The only scholarly criticism of sources used in *The Good Old Cause* has in fact been that of the Soviet historian, S. I. Arkhangelsky, in *Voprosy Istorii*, No. 5, 1950, pp. 149-51.

sad hypocrisy, *The Times Literary Supplement's* reviewer exclaims: "It is depressing to criticise a work which shows so much industry and knowledge." He and Mr. Trevor-Roper in the *New Statesman* condemn the methodological basis of the editors' choice of illustrative material—"laboriously selecting and annotating and excluding on an obsolete doctrinaire basis" (*New Statesman*).

It is the Marxist basis of the scholarship of Mr. Hill and Mr. Dell to which the reviewers object. It is unfortunate that both reviewers reveal themselves deficient in knowledge of historical materialism. This is the most common failing of academic opponents of Marxism, whose standards of scholarship are abandoned when it comes to a conscientious investigation of a theory of which they disapprove. Mr. Trevor-Roper tells us that "Marxism has been a great stimulus to historical study, but by now it has long succumbed to intellectual sclerosis." But some of his statements in support of this condemnation show both misrepresentation of the editors' aims and ignorance of the elementary principles of Marxism.

It is not true, for instance, that the editors "waste a great deal of time showing that rich were rich and poor poor." The sections on "Social Classes before 1640" and "Economic Life before 1640" set out to show that there were *two* kinds of rich and *two* kinds of poor whose wealth and poverty were related respectively to an old and dying form of social organisation (the feudal) and to a new and growing form (the capitalist); and to demonstrate the social and political tensions arising from a very complicated situation. It is not true that Marx or his followers "maintain that social classes move in politics as solid, cohesive, continuous blocs." No one with even a superficial acquaintance (for instance) with Marx's writings on European affairs after 1848, or Lenin's abundant commentary on Russian and international affairs from 1894 until his death could honestly say this. Nor is it "an old<sup>1</sup> Marxist formula" to "equate Protestantism with capitalism," in spite of the crudities of some pseudo-Marxists. Marxists insist that there is an intimate historical connection between early capitalism and the Protestant movement of the sixteenth and seventeenth centuries. They do so on the basis of fact as well as theory, but they have never made a simple equation of the two phenomena. "Equations" between modes of production and ideologies offend every principle both of materialism and of dialectics.

Some parts of Mr. Trevor-Roper's review contain a serious appraisal of the work of Mr. Hill and Mr. Dell.<sup>2</sup> Not so the review in *The Times Literary Supplement*. Irresponsibly anonymous in the deplorable tradition of that journal, the reviewer engages in abusive misrepresentation of the most glaring sort. He, too, is ignorant of Marxism and of Marxists,

<sup>1</sup> Or new—R. H.

<sup>2</sup> As does a short review in *The Listener*, April 6th, 1950.

for there is no justification for the remark "all motives, to the editors, are economic," either from the book itself, or from any reputable statement of the principles of historical materialism. Blinkered by the illusion that Marxism is the same as economic determinism, the reviewer insists that the editors, because Marxists, make "little attempt to fathom the mentality of the age," and dim "the rich and diverse colours of the seventeenth century . . . to the grey of economic compulsions and predetermined ideologies." Language of this sort, emotive and almost without meaning, reveals the unreasoning panic of traditional thinkers faced with Marxism. The conflict of outlook is well revealed in the opening sentences of the review, where an attempt is made to prejudice the judgment of this book by insinuating that the editors seek to undermine the view "that our forefathers in the seventeenth century fought for the liberties of England." In fact, this book might be called a sustained commentary on the meaning of the word "liberty." Ranging in time from the Parliamentary debates on free trade in 1604 to the eve of the Restoration, merchants, landowners, and poor yeomen are quoted as they debated what each meant by liberty. Clearly, Ireton's view that liberty must be restricted in the interests of property—"Liberty cannot be provided for in a general sense if property be preserved"—was a considerable modification of views expressed before 1640 that liberty and property stood or fell together, just as it was radically different in implication from Winstanley's view that "True freedom lies in the free enjoyment of the earth." To show, as is done in this book, how the meaning of the word "liberty" differed from man to man, and to show what social factors made men differ in their views, is to light up real, living history. These are the "rich and diverse colours of the seventeenth century": it is the academics who make of liberty a static abstraction with no roots in reality who lack the imaginative understanding necessary to reveal the true aims of the men of the past.

It is a common habit of those hostile to, or ignorant of Marxism, to charge Marxist historians with dogmatism (*The Times Literary Supplement's* reviewer) or with being doctrinaire (Mr. Trevor-Roper). It is in fact a charge which, on the same grounds, could be made against any good historian, Marxist or not. No historian investigating a period of history could successfully cope with the vast mass of source material and secondary works without some historical method. There must be some principle of selection, otherwise history would not be written, just as scientific investigation would be impossible without those principles for the ordering of data which are commonly called scientific laws. The difference between the Marxist historians and the others is not simply that the Marxist ranges his evidence according to the methodological principles of dialectical materialism as contrasted with various forms of idealism and mechanical materialism. It is that the majority of

non-Marxist historians are unaware that they apply any principle of selection at all. This does not mean that they do not use any principles. It means that, lacking any coherent scientific theory of historical development, they apply an eclectic jumble of prejudices absorbed at school, at the university and from the many opinion forming agencies of bourgeois society.

In addition to these unconsciously accepted prejudices, the historian-cum-publicist of to-day forces the facts of history so as to conform to the current needs of political propaganda. Mr. Trevor-Roper himself provided a neat example of this in the columns of the *New Statesman*. Having dismissed Marxism for succumbing to intellectual sclerosis on March 4th, he appears in the issue of March 11th as a commentator on early medieval European history. His profound opening sentence is: "All history is contemporary history." There is no form of historical vulgarity so debased as the pretence that "it has all happened before." Yet here we find St. Augustine likened to Marx, St. Gregory to Stalin, followed up with the familiar jeer that Marxism and Communism merely duplicate the rigid orthodoxy of medieval Catholicism. This may not be intellectual sclerosis, but in the context of contemporary politics it might well be called intellectual prostitution. The object of the article is not to inform us about the Dark Ages, or about the book which is a pretext for the article. While the Marxist draws upon the experience of history for generally applicable laws of social development, this historian attempts by a sleight of hand to compare the incomparable—and all in the interests of the propaganda of "Western" culture, whose only conceivable object is the ideological preparation for war.

There are two justifications for a theory of historical development. The first is that it should make sense of the facts discovered by research, the second is that it should provide the groundwork for a theory of society which will enable man to control society in his own interests. The second is a natural consequence of the first, and naturally alarms those who wish to keep society as it is. The conception that history is not "something dead, concealed in books" but "a weapon of struggle" is one which above all else alarmed the contributor to *The Times Literary Supplement* about *The Good Old Cause*.

How does *The Good Old Cause*, as an example of the application of Marxism to a body of historical evidence, satisfy the first requirement? Here we have a detailed, meticulous, documentary illustration of the Marxist analysis of the bourgeois revolution—that is, of the economic, social, political, cultural and ideological changes which marked the transformation from feudal to capitalist society. Because the Marxist method is materialist, the editors devote a considerable space to the economic and social changes which before 1640 were generating the

political forces by which the old order was overthrown. This attention to the period of preparation for the revolution is criticised by Mr. Trevor-Roper, but is essential to a proper understanding of the revolution itself. An eminent historian of another bourgeois revolution put it this way:

"True revolutions, that is those which are not confined to a change in political forms and governmental personnel, but which transform institutions and transfer property, long operate unseen before breaking out openly as a result of some fortuitous circumstance."<sup>1</sup>

We come to the events of 1640 and afterwards therefore, with a solid, many-dimensional picture of English society on the eve of revolution. We are shown the framework of the old, still largely feudal political institutions, and the opinions of the conservative elements of society in whose interests these institutions were upheld. We see the way in which a new mode of production is developed within this old framework, generating a complex class structure of improving landlords, prosperous yeomen, clothiers, city merchants. Their interests are by no means identical, sometimes conflict, but for all of them the old laws, the old institutions and the old aristocracy are a hindrance to their economic expansion, their social aspirations and their religious convictions. In a whole series of clashes over international affairs, religious policy and taxation, we are shown the development of a common political consciousness, reaching at times a burning intensity (as during the affair of the Ship Money) which seemed almost to provide there and then the prerequisites of a revolutionary situation.

The most important lesson of the bourgeois revolution which we learn from *The Good Old Cause* is that it has to happen. The transformation of feudal society could not have come about in any but a revolutionary way. This is a lesson which the *facts* of history teach us, and which the Marxists are almost alone in insisting upon, as part of a consistent theory of historical development. It was not always so. The best bourgeois historians used not to conceal this important lesson. F. Guizot, the French historian of the English Revolution, showed as long ago as 1826 that this was a bourgeois revolution against feudalism.<sup>2</sup> At the end of the nineteenth century, the historian of the heroic age of the Flemish towns, L. Vanderkindere could write:

"If man was always bound by the acts of his ancestors, life would stop; the privileged never renounce their advantages willingly; violence is the only way in which situations worse than violence can be ended."<sup>3</sup>

<sup>1</sup> Albert Mathiez, *La Révolution Française*, 1922.

<sup>2</sup> *The History of the English Revolution of 1640*.

<sup>3</sup> *Le Siècle des Artevelde*, 2nd edition, p. 32.

But to-day revolutions are toned down, explained away, deprived of their class content, for fear that the working class might learn too well the lesson of revolution which even the history of the class exploiting it teaches. Hence this collection of documents is not only a first-rate contribution to historical understanding in general, but in particular the necessary revival of a part of the English past which the bourgeoisie assiduously tries to conceal.

Another lesson of the bourgeois revolution is one which tells us about the bourgeoisie as a class rather than about revolutions. In the simplest terms, the overthrow of feudal property resulted in its replacement by bourgeois property: society and the state were reconstructed in order to conform with bourgeois property relations instead of feudal property relations. But these statements only hold good as broad generalisations. For the bourgeoisie in practice allowed—even encouraged—the survival of property interests from the pre-capitalist era. Although the antagonism between the bourgeoisie and the absolute monarchy seemed irreconcilable before the revolution, both the old and the new ruling classes had one important feature in common: they were both exploiting classes, striving for a monopoly of the means of production. Hence, not only could individuals of the one class pass, under certain circumstances, to the other, but under certain political conditions they could forget their differences under what they conceived to be a common threat by the lower orders of society to all property. Both of the reviewers of *The Good Old Cause* whom we have quoted object to the amount of material on the Levellers and the Diggers which the editors have included.<sup>1</sup> But although these representatives of the extreme left of the revolutionary forces occupied the centre of the stage for only a short time, it is clear (the documents prove it), that the menace of left-wing democracy was of essential importance in determining the swing to conservatism after 1649, culminating in the Restoration. Furthermore, the fear that the revolution would be carried too far was present long after the Levellers and the Diggers had been crushed. Did not Henry Newcombe, the Presbyterian, explain in 1662 that he had accepted the “particular persecution” of his own sect by the restored Royalists, for fear of “a Munsterian (i.e. communist) anarchy,” and of lying “at the mercy and impulse of a giddy, hot headed, bloody multitude”?

The inability of the non-Marxists to appreciate this recurrent turning point of all bourgeois revolutions is partly a consequence of the shamefacedness of the bourgeoisie in face of its own behaviour during its own revolution. It is also the consequence of the lack of a correct theory of history. The eclectic who denies the mode of production as the ultimate determinant of social and state forms, who fails to see the struggle of classes as the principal motive force of class societies, who ignores the

<sup>1</sup> Forty out of 423 pages.

material roots of ideology, is naturally unable to distinguish what is of qualitative significance in a period of revolutionary change. He applies an irrelevant quantitative measure, and therefore misses crucial shifts of direction. The Marxist contribution to our understanding of this specific phase of social change arises from the theoretical basis for the examination of the facts—but this has been anything but doctrinaire. We may quote, for example, Marx's contribution to the history of bourgeois revolutions in his *Eighteenth Brumaire of Louis Bonaparte*, and Lenin's development in *Two Tactics of Social-Democracy*—both works lucid yet subtle, theoretically rich, yet thoroughly concrete. Mr. Hill and Mr. Dell follow with a different manner of presentation and in different circumstances, but do credit to their great predecessors. It is to be hoped that further Marxist analyses of the bourgeois revolution—one of the most important steps forward in human history—will be inspired by their example. The history of bourgeois revolution and reaction could well begin with those curious foreshadowings in Italy and the Low Countries in the fourteenth century, as yet enmeshed and choked by a still powerful though decadent feudalism; and could be followed through to the present day when the elementary tasks of the bourgeois revolution in the colonies and semi-colonies are being achieved under the leadership of the working class. But just as it is only under the guidance of Marxism that the bourgeois revolution can be crowned by the socialist revolution, only on the same basis can the history of revolutions be written.

RODNEY HILTON.

*Soviet Genetics and World Science, Lysenko and the Meaning of Heredity.*  
By JULIAN HUXLEY. Chatto and Windus, London, 1949, 8s. 6d.

DR. JULIAN HUXLEY has expanded his account of the Soviet genetics controversy, published in *Nature* in June, 1949, into a 245-page book. Although the book is a more coherent presentation of his case against Lysenko, the substance is the same. It ends too with the same call for the defence of science from “totalitarianism” and with the same suggestions for persuading the U.S.S.R. to alter its policy towards science, so the political implications of his case are underlined. The book can be regarded as the most powerful attempt so far to discredit the Michurin trend in Soviet biology. In measuring Huxley's success in this respect we therefore have a means of testing the new Soviet biology and for that reason the book merits something more than the customary short review.

In essence the attitude adopted by Huxley is the same as that of Darlington, Fisher, Harland and Ashby. It is that the Soviet Academy, basing itself on the patently untrustworthy claims of Michurinist biologists, has rejected a branch of science, Mendelian genetics, resting

on "large numbers of facts and laws which have been repeatedly and independently verified by scientists all over the world" (p. 21). In place of Mendelism, Michurinism, "essentially a non-scientific or prescientific doctrine" (p. 23) based on "results not capable of verification by scientists outside Russia" (p. 21), has been installed as the official Soviet biology. According to Huxley, this has been done, not after scientific discussion as we understand it in this country, but under ideological pressure, and this in his view is the major issue: "There is now a party line in genetics, which means that the basic scientific principle of the appeal to fact has been overridden by ideological considerations" (p. 35). However, Huxley's notion of what constitutes a fact is, to say the least, a loose one. Apparently he regards as fact the elaborate hypothetical system which Mendelian geneticists have construed to interpret, not only their own observations, but evolution, embryology and practical breeding as well. He seems unable to grasp that Lysenko and his colleagues are not denying facts, but disputing the significance attached to a particular class of facts and one particular interpretation of these facts. Therefore, it must be said at the outset that Huxley's "major issue" is no more than an incident in the game of nine-pins which he and those who think like him have been playing ever since Michurin biology first received publicity in this country. For that reason, his book cannot be regarded as a serious contribution to the discussion of the issues raised by Lysenko. Its main interest comes rather from the light it throws on Huxley's own outlook and, in so far as he represents current Mendelian thought, on what Mendelian geneticists really believe.

One looks in vain in Huxley's book for evidence of objective study of the material published since 1948, especially the verbatim report of the Academy session which sheds so much light on the real issues and attitudes of individuals involved. He is not impressed by the fact that the report includes contributions by some fifty practising biologists and agronomists who use the Michurin teaching in their work and testify to its value. Nor has he noted the abundant evidence that the Michurinists are familiar with the latest work abroad, as shown by the many references to recent publications. Nor has he attempted to explain the ineffectiveness of the Mendelians in open session except to imply that they were terrorised and frightened men, a view that is belied by the spirit in which several of the Mendelian contributions were made. Evidently these are facts which do not appeal to Huxley. For him, the report simply provides examples of the "scientific illiteracy" of Lysenko and his colleagues (by which he really means their refusal to use the Mendelian terminology and approach) and the intrusion of ideological considerations into the discussion.

This boggy of ideology is important because Huxley presents himself to his readers as an objective student of the question ("I at first imagined

that there must be something in Lysenko's claims," p. viii), making up his mind after impartially sifting the evidence. In fact, he is never able to comprehend that there are fundamental assumptions in the Mendelian approach—the identification of processes with substances to mention one—and that these are being called in question. The reason he cannot grasp this point is that ideological considerations enter into his own attitude just as much as they enter into Lysenko's. But whereas Lysenko's ideology is a set of declared principles consciously applied to test ideas and interpretations, Huxley's is a set of undeclared assumptions applied so unconsciously that he would deny their existence altogether. His is the ideology of the empirical scientist expressing itself in the illusion that he is untainted with ideology, that he deals only with facts. By failing to recognise that in the long run ideological considerations determine what significance is attached to facts and how they are interpreted—often what facts are looked for and discovered—the empirical scientist misses a truth which stands out beyond all others in the history of science. Nowhere is this clearer than in the field which Huxley regards as his special province, evolutionary biology. The main facts of the fossil record, geographical distribution and comparative anatomy, which provide the chief evidence for evolution, were known from fifty to a hundred years before Darwin's *Origin* was published. Yet ideological considerations prevented recognition of their true meaning. When their evolutionary meaning was recognised at last it was expressed by Darwin in a form which reflected the new ideology of the Victorian bourgeoisie, in terms of competition and victory to the strongest, an ideology to which Huxley himself is still tied. This relation between science and ideology does not mean that science must be purged of ideological considerations, as Huxley imagines he has done. That is impossible. The correct lesson is that science must be provided with a conscious scientific ideology in place of the unconscious and unscientific ideologies of the past. That is the claim that Marxists make for dialectical materialism, and that is why, along with facts and observations, it enters into all scientific discussions in the Soviet Union.

I hope that readers of Huxley's book will read those sections where he expounds Mendelism as closely as those in which he gives his views on Michurin biology. If so they may be surprised to learn what they are asked to accept as demonstrable truth. For instance, there are many references to the "organ of heredity," by which is meant the chromosomal genes and the plasmagenes (the latter only rate a footnote). Huxley develops this idea as follows: "Its chief achievement [i.e. of Mendelian genetics—D. M. R.] is the discovery of the physical basis of heredity. There does exist a specific organ of heredity, as there are specific organs of digestion, or of bodily movement; and it is just as distinct and separate from other organs as are the stomach, or the

skeletal muscles, although being microscopic, it is not so obvious" (p. 5). He dismisses as "naïve and unscientific" Lysenko's remark on this matter: "There is no organ of heredity. . . . There are organs of reproduction, but no organs of heredity" (p. 102). Clearly this is a crucial question and worth considering further.

The term "organ," as any elementary student knows, applies to any part of an organism that carries out some special *localised* task in the overall functioning of the organism. Thus the stomach carries out the preliminary digestion of proteins, the testis produces male reproductive cells, and so on. But not all the activities of the organism can be localised in this way. There are functions and activities of living things that are so universal and fundamental that they are a feature of every living cell. You cannot speak of an organ of respiration since every cell respire. You cannot speak of an organ of metabolism since every cell carries on metabolic activities. You cannot speak of an organ of growth, since growth is a property of every cell under certain conditions. Clearly, only subsidiary and specialised functions are localised in organs, the fundamental activities are features of the whole organism. Can we decide to which of these two classes of activity, subsidiary or fundamental, the property of heredity belongs? I think we can. If the concept of an organ of heredity has any meaning, it applies chiefly to the fertilised egg cell, the bearer of heredity in the young organism beginning its existence. Such a cell will have cellular organs where particular functions are localised, and about some of these, such as the cell membrane across which exchanges of ions and dissolved substances take place, we know a fair amount. But I think no one would suggest that the egg cell possesses an organ of metabolism, of respiration, of cell division or of development. All these are features of the egg as a whole. Yet they are only different aspects of the inheritance which the egg has received from its parents. Since it is unthinkable that these activities could ever be localised in cellular organs, how much more unthinkable is the notion that heredity itself, the higher unity which embraces all these activities, could ever be localised, like a subsidiary activity, in any one region of the cell.

Lysenko is right. The conception of an organ of heredity is preposterous and arises from a failure to distinguish between qualitatively different levels of activity in organisms, to realise that an organism's heredity is one of its fundamental aspects that cannot reside in any one part of the cell any more than metabolism can reside in any one part of the organism. Yet for Huxley, who can ridicule the Michurinists for looseness of thought and false analogies, this notion of an organ of heredity is the proudest achievement of Mendelian genetics!

To deny the existence of an organ of heredity residing mainly in the chromosomal genes is not to say that the nucleus and chromosomes are

not involved in heredity at all. Of course they are, and Huxley is misleading his readers, as do all critics of Lysenko, when he implies throughout the book that the Michurinists would deny the nucleus and the chromosomes any role in heredity and would reject the facts discovered by Mendelian cytogenetics. How many times must it be repeated that what the Michurinists deny is any exclusive or special hereditary role for the nucleus. And it was well said by Gluschenko on his visit to London last year that not until we get away from this notion that the chromosomes function as the substance or organ of heredity shall we begin to find out what their real functions are.

In other places Huxley allows one to see the reality behind Mendelian interpretations of living nature and especially the Mendelian view of evolution as the selection of random mutations. Of course, Huxley has long opposed the idea of the inheritance of acquired characters, without which, according to Lysenko, evolution is unthinkable. As an example where the concept of inherited adaptive modifications breaks down as a possible factor in evolution, Huxley cites the mammalian tooth. He is fond of this example, as he used it in his earlier work, *Evolution: the Modern Synthesis*. I quote (p. 130): "The only modification which use can effect in our teeth is to wear them down. It is therefore impossible that the structure of teeth, which is often obviously adapted to the work they have to do . . . could owe anything to Lamarckian inheritance." What is wrong here? He forgets that teeth are set in jaws, the jaws attached to the skull and operated by and associated with muscles, sense organs and part of a whole complex unity, including the face and muzzle, which is subject to a great variety of possible modifications in accordance with different uses and habits. Certainly the dimensions and position of the teeth will reflect the size and shape of the jaws in this whole adaptive complex. Moreover, Huxley imagines teeth as static preformed structures. In fact, they are structures with a very special history—indeed with two histories: a set of milk teeth preceding the permanent dentition. This circumstance gives rise to the possibility that use and habit in the former can influence the development of the latter. Again, many mammals have some teeth with open roots which grow throughout life, thus opening up still other possibilities of modification through use and habit. On all counts, this example only shows up Huxley's own narrow approach to the question. But it is important because it is typical of the tendency in Mendelian genetics to see the features of an organism in isolation and to treat them as scholastic abstractions divorced from the rest of the organism and the environment in which it lives. From this it is a short step to the interpretation of evolution as a process involving only the selection of preformed differences, an approach that explains everything except the only thing that matters, the origin of the preformed differences, the mutations, that are selected.



This is an important book. It has had a big sale and the author's reputation as a scientific publicist with liberal views has ensured its acceptance by many misguided readers as a trustworthy account of the issues at stake in the genetics controversy. In fact, it is a weapon in the cold war, as delighted reviewers in the right-wing Press have testified. It deserves particularly close study by all those who remain loyal to socialist principles and believe that these principles are being applied in the Soviet Union, and who yet retain reservations about Lysenko's biology. Huxley's book will show such readers that if one rejects Michurin biology because all the facts support Mendelism, one must in consequence believe that the leadership of Soviet society is entrusted to a group of incompetent, perverted, ignorant, unscrupulous and ambitious men. In other words, to reject Michurin biology for any of Huxley's reasons is to believe in the thirteen wicked men of the Kremlin. It is good that serious socialists should be presented in this way with the implications of accepting any of the usual arguments against Lysenko.

The book is important for another reason. It parades before the discerning reader the ideological limitations which bourgeois society imposes on the minds of those who are bound to its conceptions of nature and science. Huxley's inability to distinguish between fact and interpretation, his refusal to question basic ideas or examine their origins, his failure to recognise the differences between fundamental and subsidiary activities of organisms—all these are typical of the ideological confusion of the bourgeois scientists in our time. Indirectly, Huxley demonstrates the need for a fresh approach in biology, an approach which does not distort underlying realities like the unity of the organism and its wider unity with the environment, which takes into account the organism's developmental and evolutionary history. In that sense, for the critical reader, Huxley unwittingly strikes a blow for, not against, Michurin biology.

D. M. Ross.

*Die neue Literatur.* By HEINZ REIN. Verlag Bruno Henschel, Berlin, 1949.

HEINZ REIN, himself the author of a novel, *Finale Berlin*, gives here a critical account of recent German novels which will be of value to everyone interested in modern German literature. He discusses over sixty works, many of which are not known over here, though the best, like Plivier's *Stalingrad* and Anna Seghers' *Seventh Cross* (only recently published in Germany) have been translated. One notices some omissions, e.g. more recent publications of Seghers and, above all, Thomas Mann's *Dr. Faustus*.

Rein groups his material according to themes. Many of the novels

represent an effort on the part of the authors to come to terms with the fearful experiences they have had or observed in concentration camps, in illegal struggles against Hitlerism, in the war itself; many of these are valuable material for the historian and sociologist. Some of the most widely read in Western Germany belong to the so-called "inner emigration"—men and women who found refuge from the brutality of Nazism in a private, often fantastic world. Two of the best-known of such novels, H. Kasack's *Die Stadt hinter dem Strom* and Elisabeth Langgässer's *Das unauslöschliche Siegel*, describe an imaginary world where men have escaped from all real problems by becoming "changed" in the religious sense.

Rein's purpose in writing this book, and his method, are clearly defined throughout. He aims primarily at a political purpose, and appraises the works according to their contribution to the formation of a socialist, Marxist consciousness of the present situation and tasks in Germany: "Æsthetic valuation must take second place to political analysis, particularly in the decisive period in which we are living." This political criticism is always to the point, and, simple and clear as it is, should be of help to the young writers who are trying to describe new forms of social living.

But such a purely political approach to literature has its weaknesses. It suggests that a writer must choose between art and politics. Rein himself asserts that the works of the "inner emigration," which on political grounds he properly condemns as the product of the despair of the bourgeois class, have in some cases "an extraordinarily high literary quality." Thus Hermann Hesse's *Das Glasperlenspiel* (translated into English as *Magister Ludi*), which is the story of the creation of a society of "pure spirit" as a refuge against the evil material world, is called by Rein "a great poetic work, a precious possession of German literature." I do not agree with this judgment, and I believe that faulty judgments of this type are of a piece with Rein's sharp distinction between æsthetic and political criticism. Bourgeois literature in our period is effete æsthetically as well as socially, and the task of Marxist criticism is to analyse æsthetic qualities as well as political tendencies, or, rather, to show how interwoven the two are. Rein has shown he feels this connection in his comments on Plivier's *Stalingrad* and Seghers' *Seventh Cross*, in which high artistic quality is wedded to deep human and social understanding. Many other incidental remarks show that he is aware of the æsthetic problem, but it has to be faced much more seriously and consistently.

R. PASCAL.

## Review of Foreign Publications

## BULGARIA

*Filosofska Misal*, Sofia, Vol. 6 (1950), No. 1.

This quarterly journal, published by the Bulgarian Communist Party, edited by Academician Todor Pavlov, President of the Academy of Sciences, and including on its editorial board the Prime Minister, Mr. Vulko Chervenkov, as well as a number of leading academic figures, interprets its title (*Philosophical Thought*) in the broadest sense. Science, history, art, politics are all grist to its mill, provided they are treated with sufficient generality.

The present issue contains an important article by Academician Pavlov (whose book, *The Theory of Reflection*—as yet not translated into English—is a major contribution to a dialectical materialist theory of knowledge), entitled "Philosophy and Physics." In it he examines critically the doctrine that the physicist, in studying events in the microcosm, has no objective knowledge of this microcosm, which his senses cannot perceive, but only of a kind of intermediate "physical reality," "prepared" by his macrocosmic instruments, and in which microcosmic events "realise" themselves. This kind of view is widely held in one form or another by Western physicists, and in the Soviet Union it is not without adherents.

Pavlov points out that in any case this kind of phenomenalist position is philosophically untenable; it is but the slippery slope towards thorough-going idealism—or towards the half-baked theism to which some physicists turn in despair. There are no degrees of objective reality, he reminds us; if something exists "out there," it exists, and has no need to "realise" itself through the medium of our instruments.

What the partisans of "physical reality" forget is that the regularities of the microcosm are, and indeed must be, qualitatively different from those of the macrocosm. Failing to find what they are looking for, the phenomenologists, relativists, symbolists and the like infer that in the microcosm there are no regularities, that here we are in the sphere of indeterminacy, of chance, of free will; hence that the microcosm is not objectively real in the way that the macrocosm is real. Not only is this con-

clusion illegitimate, but it is being daily refuted by the successful application of new techniques and practices based upon our growing knowledge of radioactivity and nuclear physics.

*Novo Vreme*, monthly theoretical organ of the Central Committee of the Bulgarian Communist Party, Sofia, Vol. 26 (1950), Nos. 1-3.

The main theme of articles during this quarter has been the critical and self-critical examination of the work of the Party in the light of the situation revealed at the trial of Traicho Kostov. Particularly important are the report by Vulko Chervenkov to the January Plenum of the Central Committee, and an article by Georgi Kumbiliev on the elections in Party organisations.

What emerges from it all is a concrete and documented picture of the way in which, as the bourgeoisie is ousted from one seat of power after another, the class struggle increases in fierceness and changes in form; the attack from within, and the attempt to gain control of the very instruments of people's power, are the tactics of those who cling to the past. Clearly brought out, too, in a multitude of examples, is the way to deal with this situation: collective work and untrammelled democracy within the party, estimating men by what they do rather than by what they say they will do, confidence in the working class and in its political judgment, readiness to learn from the experience of the Soviet Union, and a deeper and more lively understanding of Marxism.

R. B.

## CZECHOSLOVAKIA

Professor Ladislav Štoll, who is head of the Academy of Political and Social Sciences in Prague and a leading figure in the field, not only of philosophy, but aesthetics, delivered an important speech to the Congress of National Culture held on April 10th and 11th, 1948, which followed the two great congresses of workers and peasants which secured the victory of the Czechoslovak working class in February, 1948. This has now been published by Orbis of Prague in an English translation entitled *Face to Face with Reality*.

The burden of Štoll's speech is summed

up in his final sentence and opening remarks: "Poets and statesmen have a common road" since that "magnificent straightening of the nation's body" in February, 1948, which was "the realisation of what all the great figures in our culture have dreamed about." The rule of *Homo pecuniarius*, the "curse of capitalism," having been broken once and for all, as far as Czechoslovakia is concerned, her people are "striding across into new centuries." "All of us feel how geological progress is taking place under our very feet, how the whole complex of relations between man and man is being changed at the roots, how an historically new design of mutually humane relations is being fashioned, infinitely more clean, more transparent and more humane." And poetry, that "blessed, mankind-inspiring, revolutionary force" is now free to accomplish its historic mission without let or hindrance. Artists are able to solve that "inner conflict between the ideal and the real" which under capitalism was insoluble and hence often led them to be reactionary romantics even when they were realists, as in the case of Balzac and Tolstoy.

After dealing effectively with the objection that Socialism "will require poets and artists to forswear their mission and write and paint and compose only propaganda," he deals with the contention of those who claim that socialism will vulgarise art. Both workers and artists, he says, have a creative relationship towards the world. The worker can readily appreciate as a fellow spirit the revolutionary artist who under socialism becomes essentially a joint-creator of the new life.

Štoll then proceeds to discuss the nature of socialist realism as a qualitatively new art form.

Socialist realism has a militant mission, creatively attacking injustice, lies, cynicism and selfishness. It is an "explosive mixture of poetic dreaming and real human longings." As such, it continues the tradition of all great art.

But socialist realism is only possible when art works hand in hand with the struggle of the working class for liberty. In this way—and here Štoll quotes Šalda, the real founder of modern Czech criticism, who died in 1937 at the age of seventy—"the poet is once again as he has been in all primitive times—namely

the straightforward strength of social love, of social faith, social desires and service."

All writers and artists must have a fierce and passionate belief in the "realisability of their dreams," in the "realisability of true humanity," as the great Russian humanists of the last century possessed.

It is to this sublime, unbreakable faith in humanity, which has now become an immense social force on a world scale, that we are indebted for being able to-day to look the world proudly and boldly in the eyes, for being able to look truthfully—as Gorky put it—with irony on the past, with realism on the present and romantically on the future. In this way of looking at things is hidden the whole secret of the new culture, the secret of socialist realism.

"This is not some new idea on artistic expression, some new 'ism,' but the basic tendency of the new epoch, a tendency with all the force of law."

Throughout Czechoslovakia, declares Štoll, a new life is growing up. Human brotherhood is no longer a mere phrase, but "the truth of deeds." The workers are no longer a "grey mass of human units in proletarian caps"; they are new beings "with the practical sense of experts," "lords of nature." Here, then, is the vital need for the artist. These people need better art, better ideas to answer thousands of burning human questions. And herein will lie the strength of the new art. Away from subjectivism and cynicism, forward to objectivism, in conscious service of the people! Away from snobbish tastes and ivory castles! Away, too, from modernism and *avant gardisme*. Let there be a conscious return from the world of abstract ideas to the full-blooded reality of life.

Writers and artists must go out to this new task boldly, and unashamed of their natural human feelings. What, after all, do these new people ask of artists? They want to be gripped, captivated, "carried away by tenderness or anger, moved to tears or to laughter, they want their hidden feelings of lyricism or heroism to respond."

It is by satisfying this desire of the people that artists will make their contribution towards the transformation of society. In intimate touch with the reality of life, they will help bring about

the complete liberation of mankind. And in this way the artist will come nearer to interpreting the deep longings of his fellow men. His works will be something that the broad masses can understand, all the greater for the fact that he himself and his creative problems are not to be seen or felt in his work.

S. J.

GERMANY

*Einheit* (Unity) is the theoretical organ of the Socialist Unity Party of the German Democratic Republic. Its title and contents have been basically altered with the May, 1950, issue, the title now being *Unity: Review of the Theory and Practice of Scientific Socialism*. However, the last number with the older title, *Theoretical Magazine of Scientific Socialism*, devoted to the eightieth anniversary of Lenin's birth, already testified to a changed attitude. The previous editorial board was held to have considered scholastic discussions as paramount without linking them closely with the concrete tasks of realising and safeguarding socialism, and to have shown an aloof spirit. In consequence, it has been held that this apparent objectivity and scholastic detachment resulted in its opposite, since it was divorced from concrete practice and hence could have no other issue than that of theoretical error. History, especially of the revolutionary movement, biography of revolutionary and counter-revolutionary personalities, valuations of literature as weapons of working-class liberation, became falsified through this mode of abstraction. The previous editorial board declined to accept this estimate of their functions and were stated to have shown intellectualist snobbery in the character of their attempt to vindicate their editorial work.

It was made clear that there was a certain repugnance on the part of the former editors to share in popular enthusiasms, and a failure to estimate justly the immense contribution of Comrade Stalin, and to stress the meaning of the *Short History of the Communist Party*. The result was an attempt to escape from the tasks of the moment and to find refuge in esoteric discussions beyond the comprehension of ordinary people. This was held to evince a failure to undertake in this field the historic task of the proletariat and its advance guard at a moment of intense historic

danger. The true role of theoretical, historical and aesthetic discussion, then, is to illuminate and animate our present tasks and by this criterion does their meaning become decisive. Bourgeois "objectivity," being no objectivity at all, can thus poison theory in a socialist society, its exponents failing to apprehend its anti-revolutionary quality because of their long academic identification with a hostile order of things. There is no impeachment here of the personal integrity of those responsible for these errors, but naturally, since ideas and actions are of a piece, they could not be entrusted with editorial functions under such conditions. It must be remembered that *Einheit* is the organ of a party charged with the actual administration of the commonwealth, and hence has a different role from theoretical organs in capitalist lands where the process of enlightening bourgeois intellectuals is a specific task.

Out of a wealth of interesting material we select two articles for special mention. The Socialist Unity Party is responsible for a valuable pronouncement on the Bicentenary of Bach, which is being celebrated this year, and especially in his own city of Leipzig (in Eastern Germany). Combating the views of Schweitzer and other bourgeois musical historians who find the essence of Bach's genius in his descriptive Biblical music and the passionate intensity of mystical experience as reflected in his work, this article reveals Bach as a composer who by his genius transcended the narrow limits of German music by incorporating a great wealth of contemporary musical achievement into the German tradition, and who entirely transformed formal ecclesiastical music into an expression of bourgeois humanism.

Another significant contribution is the review of Professor Kofler's *History of Bourgeois Society*, which was published in the Soviet Zone of Germany in 1948. This book appears to be a hotch-potch of intellectualist clichés; that Marx was a Hegelian, that scholarship must weigh Marxism against "other" theories from the philosophical stratosphere, that Marx and Croce converge in certain respects, that Marxism's apogee is that it is now "worthy of university status" (the whole object of the Bolshevik revolution apparently having been to deserve, in due time, the applause of dons), that historical

materialism and dialectical materialism are not "necessarily related," that there are historical analogies between the Russian revolution and previous ones, that Socialism will end the contradiction between materialist and idealist aspects of humanity, idealist aspects being higher (of course!) etc. Little wonder then, that the historic work of a revolutionary party not only evaporates under this high-flown analysis, but a subtle hostility to its role becomes apparent. This review is a masterly study of the class significance of bourgeois philosophising.

The new *Einheit* promises well.

W. J. B.

FRANCE

Among the more important articles in recent numbers of *La Pensée* and *Nouvelle Critique* are those on cultural and educational questions in the French Empire—known since 1946 by the more polite name of "Union Française."

Although written for French progressives and in condemnation of French colonialism, much of what is said applies very directly to ourselves.

Jean Canale writes in *Nouvelle Critique* 13 (February), about "Our Teaching on the Colonies." He quotes from a textbook in current use in French schools, whitewashing the system and its results. Canale effectively exposes this book with a battery of facts and documentation. Typical of colonial "wealth and well-being" is the average income of a family of Senegalese peasants—in 1947 14,500 francs a year (£14 10s.), out of which they had to buy rice at black market prices, clothes, pay taxes and levies, etc.

The purchasing power of the Madagascar population (according to the Catholic periodical, *Esprit*, February, 1950) has been decreasing steadily during fifty years of French occupation.

As to health, periodical famine in Africa is no longer a natural catastrophe, but a social phenomenon. In general, chronic undernourishment prevails and is a breeding ground for disease. What has been done for public health and hygiene, with the main object of preventing the disappearance of native labour, has, in spite of heroic efforts of many colonial doctors, been offset by the spread of diseases and introduction of new ones, such as T.B. and syphilis, not to mention alcoholism—supported by commercial firms in Africa and by the administration in Indo-China. (Alcohol

and opium, forbidden by Ho-chi-minh's government, were and are state monopolies in the regions occupied by the French; they furnish a large part of Bao-dai's funds. In French Equatorial Africa the heavy work (especially on the Congo-Ocean Railway) done by natives resulted in the halving of the population, between 1910 and 1939.

As to economic help from the "motherland," we learn that the money invested in black Africa from 1900 to 1940 amounted to 84 milliard francs (1940)—roughly a third of one year's French Budget. Practically no agricultural machinery or equipment has been introduced, as it is found that native labour is cheaper. The degree of exploitation is illustrated by the figures given for 1947 coffee prices; the producer got 34 francs per kilo, while the official price was 174 francs, and on the black market fetched 1,200 francs a kilo.

While the defenders of French imperialism praise the abolition of slavery, Canale points out that forced labour is general in French Indo-China and Madagascar. Racial discrimination rules in laws and wages: at Dakar the minimum salary is £3 10s. monthly for Africans, £16 for Europeans; victims of work accidents receiving £20 a month in France get an annual pension in French Africa of under £3 a year. War victims get £2 monthly in Africa as against £9 in France.

No colonial population has got national independence nor even the right, guaranteed by the Constitution, to self-government. The high commissioners and governors have "discretionary" powers by which they overrule any show of independence.

Jean Canale makes it plain that the only clear and just attitude is that of the Marxists, who hold that "colonisation has never been a civilising aim, its object being to secure raw materials of colonial countries for the monopoly capitalists, markets for manufactured goods, and markets for the export of capital," and that all attempts to present it as a beneficent mission are sheer hypocrisy.

In *La Pensée* (29), March-April, the same writer deals with the particular subject of education in French West Africa, where one-twentieth of the child population attends school (where one master teaches an average of fifty, but usually eighty to one hundred children)

often in huts of brushwood and leaves, without books or blackboards.

5-75 of the Budget goes to education, the rest of it being mainly absorbed by administrative and police expenses. Official policy is to keep the natives ignorant; attempts at self-help are sabotaged, as witness the Ivory Coast villages which offered to build their own schools and begged in vain for teachers to be sent. There is a vicious circle which the authorities do not attempt to break: teachers are not trained, as there is hardly a secondary education (none at all existed before 1939) and no higher education; although there is talk of a university for Dakar (the rector is already appointed!) there are as yet no buildings for it.

One more article on this subject, by Paul Verges (*Nouvelle Critique*, March), on "Culture in the Colonies," describes how once-flourishing native cultures such as those of Tunisia, Morocco, Madagascar, Algeria (where only 150,000 children attend school) have been stifled or stamped out, while in Indo-China the existing national culture is destroyed. Everywhere native languages are discouraged. Cultural oppression is just one aspect of colonial oppression, in spite of the fact that colonisation is presented as a civilising, humanising mission—"a great conquest over inhuman nature and no less inhuman mankind" (M. Boisdon, Chairman of the U.F. Assembly 1948)—to inferior beings such as the Polynesians, for whom "love and family feelings no longer exist" (*L'Aube*, August 12th, 1949).

The necessity for keeping the native people uneducated and illiterate is obvious; the cat is often let out of the bag, even recently by so eminent a man as M. Auriol (May 31st, 1949) who admitted that "technicians are needed no doubt, diplomas too; but too many diplomas and not enough jobs might mean creators of agitation." M. Graule, a very important person, fears the "redoubtable results" of technical education; another prominent publicist would "avoid forming masses with extravagant demands which might expose themselves to unfortunate reprisals, as recently in the Cameroons." (Not to mention 80,000 dead and 10,000 jailed in the Madagascar riots of 1947.)

The solution of the colonial question is the condition of the cultural solution. National freedom means freeing of

national culture, as is shown by the U.S.S.R., the victories of the Chinese Republic, with its renaissance of popular music and drama, and the people's fight in Indo-China and elsewhere.

Intellectuals have an urgent task in this battle for freedom and culture; in the words of Mao Tse-tung: "To penetrate to the workers . . . to create works of art which are weapons for their oppressed brothers." As an example, Verges quotes the very moving poem of the Algerian poet, Kateb Yacine, on the execution of the Communist leaders of Iraq by the British-dominated Iraqi Government.

Thus do class conscious colonial intellectuals contribute to the struggle and to their own live national culture—the contribution, as Stalin says, "of each nation to the common treasury of the world culture, which each completes and enriches."

The truth that culture and national freedom are inextricably linked is underlined by two articles in *La Pensée*, "Revolution culturelle en Roumanie" (No. 270), which describes a country just freed from semi-colonial fetters, where culture is already flourishing under a socialist people's government, and "Grèce et la Démocratie," by Pierre Albouy (No. 29), a vivid reminder of the horrible oppression by the American-controlled government in Greece, where the best intellectuals are murdered, imprisoned, tortured, and national culture as effectively obliterated as in any of the French colonies.

The most recent *La Pensée* (May-June, No. 30) has an article by Marcel Prenant on "Professor Huxley, Science and Peace," in which he reviews the book *Soviet Genetics and World Science*, exposing its fundamental anti-sovietism, and accusing its author of using his pen in the service of the warmongers.

There is, in the same number, a review of recent numbers of *The Modern Quarterly*. *La Pensée* offers "fraternal criticism" of certain articles—in particular those of Professor Gordon Childé and of Dr. Winternitz in No. 4, Vol. 4. "Our English friends are holding an uncomfortable but important sector of the battle front, but this is not evident from the reading of *The Modern Quarterly*." We are accused of a "certain academism which flies over history without taking part in it." However, there is high praise for our historians

and particularly for the Tercentenary Number, which is "d'une grande richesse."

The interest taken by *La Pensée* in this subject is shown in the publication of an article by Christopher Hill in No. 28 (January-February, 1950) on our Marxist historians' work.

F. S.

U.S.S.R.

M. Alpatov writes (*Voprosy Istorii*, No. 7, 1949) on "A New Stage in Discussion of the Transition from the Ancient World to the Middle Ages," recalling Stalin's remarks in 1933 and 1934 on "the revolution of the slaves," which substituted feudal for slave-owning exploiters, and on the victory of the non-Roman "barbarians" which overthrew the Roman Empire (*Leninism*, English Edition, 1940, pp. 457, 480). Marx and Engels, he points out, in a number of instructive passages described the crisis of the slave-owning mode of production which led to that tremendous event. But, in stressing the revolutionary significance of the barbarians' victory, they left undeveloped the other side of the question—that of the role of the slaves as a revolutionary class. Only the training of a large group of Marxist historians of antiquity in Soviet times, says Alpatov, has made it possible to effect a new and critical review of the whole heritage of documentary and other material of the Later Roman Empire and Early Middle Ages—of such writers as Herodian, Eumenius, Mamertinus, Ambrose of Milan, Ammianus Marcellinus and many others—and to disclose the distortions of bourgeois and other history writing in this sphere. In a brief survey of the whole ground, which Alpatov underlines still requires a great deal of working over, he describes the "bloody class-war which raged over the whole expanse of the 'world' Empire, reaching extreme ferocity and covering an entire historical epoch." There now stand forth in a new light the character and dimensions of the movement of the Bagandae at the end of the second and beginning of the third centuries, under the leadership of Roman soldiers (Gaul and Spain), of the Donatists and Agon-

istics (North Africa), of the Skamari and other massive popular movements in the Balkans. Unlike the revolt of the slaves under Spartacus in an earlier age, these great struggles came to victory precisely because they found mighty allies in the struggle against the slave-owners—the great mass of the *coloni*, the social and economic category which appeared in the later stages of the slave Empire; the Imperial soldiery, drawn from the same classes of slaves and *coloni*; and the barbarian peoples, who derived strength for their decisive attacks on the Empire precisely because of the new wave of slave revolution. However, the slaves, as Marx, Engels and Lenin often pointed out (e.g. Lenin, *Selected Works*, XI, pp. 654-5), were never capable—at this or any other time—of themselves taking the lead. In destroying the Empire they opened the way for the rule of a new class of exploiters, recruited in the main from the barbarian military aristocracy: they themselves ceased being slaves only to become serfs, and the new ruling class became a class of feudalists, not slave-owners (on which, of course, Engels expressed some of his most stimulating ideas in *The Origin of the Family, Private Property and the State*).

Issues of *Voprosy Istorii* in 1950 have contained several articles on the history of international politics just before and during the Second World War. They are of particular interest because of the many apologetics now appearing on the market, whitewashing the imperialist Powers and blackening the Soviet Union, from the pens of Winston Churchill, the U.S. State Department, the semi-official *Documents of British Foreign Policy*, Professor Namier, Max Beloff and others. We can but mention, in No. 1, Kadomsky, "The Formation of the Anglo-American Bloc after the Capitulation of France (May-December), 1940"; in No. 2, Nekrich, "The Double Dealing of the Chamberlain Government and Its Collapse" (on the 1939 negotiations with the U.S.S.R.); and in No. 3, Kalinin, "The Soviet-Finnish War and the Treacherous Policy of the British Labour Leaders."

A. R.

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