

back to 'modified' Stalinism.<sup>4</sup> Yet in Eastern Europe there are encouraging signs. The peasants and millions of other working people are stirring. Above all the class-conscious workers are waking up. They want something better. The danger of a Leftward development, especially in Poland, is that the opportunist leadership in the Soviet Union will turn it into another Hungary and drown it in blood. But socialists must stand by the socialist countries and keep faith with the people. They must support the nationalized property

<sup>4</sup>The only exception here is Albania, whose leaders could not fairly be said to have been 'forced back' to any position, since they had been one hundred per cent. Stalinists, at least since 1949, and did not cease to shoot their leading 'Titoists' even in 1956.

JOSEPH CLARK

## AN AMERICAN JOURNALIST IN MOSCOW

A LENINGRAD STUDENT told me something shortly after I arrived in the Soviet Union in 1950 which illustrated in a small way a big aspect of the Russian Revolution.

We were walking by a big building and the young man pointed to it, smiling, as he said: 'This used to be the stock exchange. Now it's a maritime museum. That's a pretty good use for a stock exchange, don't you think?'

Yes, I was then and still am impressed by an economic system which not only exists without a stock exchange, but makes far more rapid progress in production than it did when it was blessed with one.

At the Lenin Museum in the city where the soviets were born they've preserved the old armoured car from which Lenin addressed the Petrograd workers on his arrival from Finland.

Crude letters inscribed at the time still spell out a message up near the turret, reading: 'Enemy of Capital'.

And in all the re-examination I've made after learning belatedly about the evils of Stalinism I have not been able to discover any restoration of capital in the USSR. Nor can I find the 'new class' which Milovan Djilas writes about, in an economic sense.

A new bureaucracy? Yes. A degenerative process that set in as socialism was being built in a single, very backward country? Yes. The rise of Stalin to autocratic power and the ruthless deformation of socialist concepts of justice, morality, equality and freedom? Yes.

But a 'new class' which appropriates the social product from the workers and uses, enjoys and disposes of this product in any manner it pleases, as Djilas argues? That you won't find in Russia, or in China, Yugoslavia and Poland.

Nor is this idle hair-splitting. It involves the lasting role of the socialist revolution of 1917. If a new exploiting class is in power in Russia, counter-revolution has triumphed.

Then the Trotskyist slogan of a new 'workers' revolution' in Russia (and China, Yugoslavia, Poland) would have validity. But it hasn't. Brilliant though Trotsky's analysis was of the rise of bureaucracy in Russia and his forecast of degeneration in the Soviet state, his slogan of 'workers' revolution' can only impede the steady struggle to eliminate the remaining baleful legacy of Stalinism.

That slogan can become confused—and has been in actual politics—with George Kennan's old 'containment' policy and the Dulles 'liberation' crusade.

I've asked myself many times why I was blind to most of the evils of Stalinism during the nearly three years I spent in the Soviet Union as *Daily Worker* correspondent.

I find small consolation in the fact that much wiser people—Hyman Levy, the Webbs, to name but a few—also missed this terrible, dark side of Soviet development.

But certainly one reason lies in the continuing viability of

relations that exist in all these countries; they must defend Poland with its great upsurge of socialist consciousness. There is a danger to Poland, not only from western imperialism, but from Russian chauvinism.

The existence of the hydrogen-bomb alone makes working-class solidarity a vital necessity. The recent Yugoslav-Polish declaration gives a valuable lead on this, based on real internationalist principles. It will do no service to the peoples of eastern Europe if in the battle of ideas now in progress in our own country we throw out Leninism. The future of eastern Europe can only be built by workers' parties (in some cases with the assistance of other groupings) with uncorrupted leaderships. Above all there is a crying need for a revival of internationalism among the workers of all European countries, whether in the East or the West.

the 1917 revolution. Even the critical observer who wore no rose-coloured glasses and who knew of the repressions, the awful penal camps, the frame-ups, would have to concede certain fundamental facts about Soviet society:

**THAT this woefully under-developed country, whose poverty was a factor in its distorted development after the revolution, has become a highly industrialized State.**

Without in any way condoning the terrible price in human life and loss of freedom paid for this industrialization, and without suggesting that such is the socialist path for under-developed countries, it is a fact that Soviet society developed modern industry, technology, science. Today this has become a basis for eliminating the Stalinist legacy.

**THAT the socialist revolution has accomplished an enormous cultural transformation.**

This starts with the elimination of illiteracy and includes mass dissemination of scientific, artistic and cultural achievements among the people.

Small indications of great changes constantly come to mind. I remember a walk in a field of rye where peasant girls were toiling. From afar I saw that one of them had hammered a piece of paper to a tree. When I came closer I found that it was a creditable drawing of Pushkin and a line from his poetry was scribbled underneath.

Looking through the books in the library of the newsprint plant in the small town of Pravdinsk on the Volga, I was struck by a translation of Proust's 'Remembrance of Things Past'. The card in the back of each volume showed that it had been constantly in circulation. And I often recall the Soviet kids who played hockey from school to see Swan Lake.

**THAT even after nearly 30 years of Stalinism a fundamental attribute of Soviet socialism still operated in world affairs—the quest for peace.**

This, too, has been distorted, true enough. The despicable campaign against Yugoslavia, the failure to see earlier the positive contribution of the neutral nations, the stupidity of the Berlin blockade, the failure to pursue a settlement in Korea earlier along the lines that were finally accepted—these and many other Soviet policies contributed to the cold war which Truman inaugurated at Hiroshima and Nagasaki.

The fundamental need of Soviet society, however, remained peace. With all its failings Soviet foreign policy was predicated on peaceful coexistence.

On this fortieth anniversary of the Soviet Revolution mankind stands at a great divide. It is quite different from the turning point which Marx and Engels saw in 1848 or which Lenin envisaged in 1918.

Marx and Engels wrote in 1848 that Germany was on the eve of a bourgeois revolution which was bound to be the prelude to an immediately following proletarian revolution. Lenin wrote in 1918 that the world war was not only leading Russia, but the whole world to a world proletarian revolution.

The historic watershed we've arrived at would seem to be something else, although related generally to the vision of

Marx and Lenin. The defeat of Hitlerism and the rise of two systems of States following the Chinese Revolution have posed the real possibility of peaceful coexistence and elimination of war.

Perhaps it results, in this atomic age, from the fact that both sides have hydrogen bombs and are in the process of attaching them to intercontinental missiles.

Nevertheless, and despite the cruel small wars, despite the big cold war and its continuing threat of atomic destruction, there is the realizable prospect of eliminating war in an era when civilization itself could be destroyed by war. Both sides

must lose in war.

Nor does peaceful coexistence eliminate the possibility of a world-wide socialist development. Come it must not through war, but through the elimination of war. The revolt against Stalinism within the communist movement gives promise of a new revival of socialist thought and organization in the Western world.

This same trend can also restore the democratic and humanist basis of socialism in the communist countries. Nothing would contribute more to this process than achieving détente between East and West.

KAMINI MEEDENIYA

## The October Revolution and the Peoples of the East

BY THE END of the nineteenth century all of Asia (except Japan) had been carved up among the imperialist Powers. Some countries, having been conquered, were ruled directly. Others, like China, were virtually controlled by a series of unequal treaties and concessions.

Various national movements had taken shape in these countries. In China Sun Yat-sen started the organization which was later to be the Kuomintang. This was not originally a movement against imperialism, but against the feudal Manchu régime. The Indian National Congress was formed in 1884 (with the blessings of the British, who hoped it would contain the national discontent) and sought to share in political power. The Sarekat Islam in Indonesia was an organization chiefly of Javanese merchants directed against their Chinese competitors.

Up to 1914 none of these organizations had sought to bring the masses of the people into the struggle for national independence; nor indeed had they even put forward a clear slogan for complete independence. As a result of the first world war, however, industrialization accelerated in Asia, and the number of industrial workers and their organization into trade unions increased. The working class was emerging for the first time as a significant force.

### RIGHT OF SELF-DETERMINATION

The Russian Revolution affected the national movements indirectly at first, directly later on. To begin with, the Revolution showed that the people, correctly led, could overthrow such a formidable foe as the imperialists; that an alliance of the working class and the peasantry was well-nigh irresistible. But in order to draw the people into struggle it was necessary to have not merely a political aim but also a programme of social reform. Up to then this was not present in the programmes of these bourgeois movements, except for the very vague 'three people's principles' of Sun Yat-sen. The Russians, in accomplishing a social revolution, gave a tremendous impetus to the mass movements in the Asian countries.

Another factor of significance to Asia was the attitude of the newly-formed workers' State to the subject peoples in its own territories. The Bolshevik Party had a clear policy on the right of self-determination of nations, and on the rights of national minorities, and it proceeded to put this policy into practice. The Soviet government relinquished all its rights in China. These actions had an inspiring effect and helped to expose the imperialist Powers and to destroy the illusions which people like Sun Yat-sen and some Indian National Congress leaders had about imperialism. Therefore when the Allies sold out China in the Treaty of Versailles it was plain to see why Lenin's work on imperialism helped too. The British administration in India rushed through the Montagu-Chelmsford reforms, which were accepted by some sections of the Congress.

The direct way in which the October Revolution influenced the mass struggles in the Asian countries was through the Communist Parties formed after the setting up of the Third International in 1919, and through the relations the Soviet government had with the government of China and with the

Kuomintang. The Chinese Communist Party was formed in 1921 under the leadership of Chen Du-hsiu and grew considerably in the south as the working-class movement grew. But the Soviet government felt that the Kuomintang was the big party in opposition to imperialism and gave it every support. A military academy was established with Russian advisers and the Chinese Communist Party was instructed to work inside the Kuomintang. We know now the tragic consequences for the Chinese people of this policy of subordinating the Chinese communists to the Kuomintang. At the time it did this much: it showed the Soviet Union to be on the side of the national movement and against imperialism. Later on the victory and consolidation of the third Chinese revolution was helped—if only morally—by the existence of a workers' State (though bureaucratically degenerated) in Russia. This State ranked as a major world Power. As the achievement of October it had the support of millions all over the world. It therefore made imperialist intervention in China impossible without the threat of a world-wide conflagration.

In Indonesia and Indo-China the Communist Parties formed in the early twenties grew rapidly and did much to influence the national struggle. But in Indonesia the Dutch were able to smash the party in 1927. It did not emerge as a force again until after the second world war. But however ineffectual the party's programme may have been in 1924 its participation in the struggle of that year helped to show the people that they would not get self-government in co-operation with the Dutch. In Indo-China it was the communist movement which led the last struggle against the French and threw them out of north Vietnam.

In other countries of Asia the Marxist parties were formed at a much later date, after the bureaucracy had consolidated itself in the Soviet Union. Many of them became mere instruments of Soviet foreign policy. Yet they were able to grow and flourish because they had behind them the enormous prestige of the October Revolution. It is only in Ceylon that a truly Marxist party of any size (the Lanka Sama Samaja Party) has so far been built.

The October Revolution greatly encouraged the eastern peoples in their struggle for national independence. This remains true to this day, despite the zigs and zags of Soviet foreign policy and the subservience to Moscow of the leaders of the Communist Parties.

### Newsletter Pamphlets

● Brighton and After: The Labour Party Conference and the Tasks of the Left 2d.

● Russian Youth Awakes

MAURICE PELTER

2d.

Obtainable from The Newsletter, 180, Clapham High Street, London, S.W.4.

TOM KEMP

## The Giant Strides of Russia's Planned Industry

IF THE October Revolution had done nothing more than to make possible the transformation of backward Russia into the second industrial world Power it would have been an event of prime importance. But, in addition, the nature of the Revolution enabled industrialization to be carried forward with the unique conditions of nationalized property and as a conscious, centrally-determined policy.

The tempo and scale of industrial growth thereby realized had, and has, the profoundest effect on world opinion, especially in the under-developed countries.

In beholding the achievements the gross mistakes and gigantic crimes with which they were accompanied—comparable to the worst results of industrialization under capitalism—are frequently overlooked or misunderstood.

For the propagandists and apologists they are to be omitted from the record or hurriedly glossed over. For the denigrators of socialism and professional anti-communists it is dogma that coercion and terror spring directly from nationalization and planning.

The record needs to be set straight if Soviet industry is to be appraised in its full context in accordance with Marxist methods and standards. Like all industrial structures, that of the USSR carries the indelible marks of its origins and history; a retrospective treatment is therefore obligatory.

Russian industrialization began in the late nineteenth century. The proletariat to which it gave birth provided the class basis for October; but it remained greatly outnumbered by the vast peasant multitudes.

War, revolution, civil war and foreign intervention—with their train of scarcity, famine and epidemic—brought tremendous disorganization in the factories and in the entire economy.

Equipment lay idle, rusted away, worn out; workers were drained off by the front and administrative needs or simply drifted back to the villages where food was nearer at hand.

Production fell to catastrophic levels and the whole economy was spiralling downwards. The survival of the Revolution depended upon the speediest reversal of this process and a vast expansion of the productive forces.

With misgivings, concessions were made to the petty bourgeoisie and the peasantry—the New Economic Policy—and a major struggle arose in the Communist Party as to how and at what rate the problems of industry were to be tackled.

### OPPOSITION PROPOSALS

That in a party of striking personalities, in which uninhibited discussions had been the rule, there should be differences of opinion on this vital question was to be expected. These differences became part and parcel of the political struggle (proceeding in the party, State and Comintern) which, arising during Lenin's last illness, was carried to its fateful conclusion in the half decade after his death in a manner utterly foreign to the traditions of Bolshevism.

From 1923 onwards the need for a more energetic industrial programme and the drawing up of plans for expansion were being advocated by what became known as the Left Opposition. The most detailed exposition of its thinking was contained in the Platform of 1927, by which time the followers of Zinoviev had joined with those of Trotsky.

It was argued that without a planned flow of resources into industry it would not be possible to supply the peasants with the goods to encourage them to voluntarily relinquish (or increase) their crop surpluses and improve the living standards of the people.

At the same time without a correct international political orientation the sacrifices of the Russian people could not be lightened and shortened.

These proposals were suppressed, distorted and misrepresented by a machine increasingly under the control of the general secretary and their advocates were dubbed, in derision,

the 'super-industrializers'. But, within two years, in the dramatic turn of 1929, these very proposals were seized upon and partially embodied in the Five Year Plan.

The advances of the next decade, primarily in the field of heavy industry and constructional engineering, were indeed breath-taking, even granted the great human and material resources of the country.

But these impressive economic achievements were accompanied by ruthless suppression of opposition in the party and the State under the aegis of an all-powerful secret police and the use of compulsion and terror throughout the population.

The acceleration of industrial growth apparently required a degree of repression far exceeding that of the worst days of the civil war!

As for industry, in a famous speech in 1931 Stalin laid down the rules which have governed industrial management, discipline and remuneration to this day.

Rapid industrialization meant immense disturbance of accustomed ways of life, clashing with accepted standards, dissolving old social forms and involving painful readjustment in the lives of large masses of people.

### THROUGH THE LABYRINTH

In the early stages at least, little improvement could be expected in the standard of living owing to the needs of capital formation. Russia could not escape the characteristic problems of all known industrialization processes, such as the immense burden on city housing, sanitation and administration represented by the massive influx of raw, peasant recruits to industry.

But if upheaval and such social problems as these were inescapable, the question arises whether they could not have been reduced and whether they need have led to the kind of régime which characterized the USSR in the period, contrasting so markedly with the aspirations of October.

The characteristics of the Stalin period are a matter of historical record. Both in the party and the State rank-and-file control over policy disappeared; boss rule took its place.

Criticism or disagreement openly expressed led to torture, forced labour or a ghastly death, more often without even the pretence of a trial.

Planning began at least five years too late, was embarked on recklessly and on a basis of trial and error: it was not surprising that the errors were numerous. Deprived of the full benefit of goodwill, selfless participation and full co-operation from the people; deprived of the prophylactic and corrective balm of discussion, criticism and give and take, the general tendency was to ride roughshod and the mistakes were on a colossal scale.

To hide the mistakes lies and crimes were resorted to; scapegoats were found; no one was safe from frame-up.

Yet through this incredible labyrinth the factories, steel mills and power stations came into action—their construction and operation not conditional upon private expectations of profit and the anarchy of the market which was spreading unemployment and misery in the capitalist world.

Great things were achieved, laying the basis for greater things still. The indices of industrial growth may be criticized from this side or that but the unprecedented scale and tempo of Russian industrialization remains incontrovertible.

New industries, whole new industrial regions were created. An immense new proletariat strode forth from the depths of old Russia. It built with a will and took pride in its labour even when its own rewards were paltry. It would grow in purposefulness and self-confidence: the process will not end until it comes into its inheritance. . . .

Plan followed plan. The strain of war and the burden of reconstructing war-devastated areas have come and gone. The upward march continues. The capitalist commentators debate not whether, but when, the industrial output of the USSR will overhaul that of the USA.

For socialists the results of Soviet industry must be calculated

not in output statistics alone, crucial as they are, but in terms of its structure and the quality of life which it makes possible.

They have to ask whether terror, and the creation of a topmost stratum of privileged officials, are the price which has to be paid in the industrialization of a backward country—or the socialization of an advanced one.

The answers to these questions can be given only in abstract terms, but yet on the basis of facts and with the aid of a materialist analysis and positively enough for all but the indoctrinated worshippers of the accomplished fact.

The great tragedy of the period since October, 1917 (for on this anniversary we need to recall the tragedies no less than the triumphs) is that while Russia was far from the material basis for socialism, the political prerequisites established in triumph were filched away by stealth and have yet to be regained.

Lenin hoped that what the Bolsheviks had begun the working classes of other countries would complete. As the revolutionary wave broke and receded so Russian industry was thrown back upon its own resources, while the ruling caste was consolidated in the saddle by isolation which their policies helped to perpetuate.

Industrialization in one country: that was feasible enough, though it imposed an immense burden on the Russian people (and a certain minimum of imported technical aid and capital could not be avoided).

It meant belt tightening, exaggerated priority to capital goods production, the penury and poor quality of consumer goods. It involved shortages, bottlenecks, higher costs and lower productivity than might have been possible. It turned the problem of 'disproportions' into a nightmare.

But industrialization 'in one country' is by no means identical with 'socialism' in one country. How, indeed, can socialism be reconciled with shortages, sacrifices (not to speak of the 'cult of the individual') and all the inescapable hardships of the first stages of industrialization in a backward country?

Of course, the extension of the revolution, especially to the advanced countries, would have changed the whole nature of the problem.

But by the late twenties the role of the international working class was seen as the manning of the outer defences of the 'socialist fatherland'; internationalism has since been defined by the attitude which foreign socialists take up towards the USSR, or rather its ruling faction.

'Socialism in one country' acted as a deterrent to the spread of socialism, not only in other countries, but also in the USSR itself! The industrial structure, the wage system, factory administration show this clearly enough.

The very distribution of goods depends on the rate-fixer and those who, more or less arbitrarily, determine the scale of bonus and other payments to technical and managerial personnel.

The obnoxious doctrine of the equalization of wages is meanwhile banished to the realm of heresy. Yet strangely enough it seems to turn up repeatedly in one form or another

because it involves the whole burning question of inequality and privilege. This is the background to the wage changes of the past year or so.

The shifts and turns of the last few years have shown that the raising of the industrial level of the USSR does not diminish but renders more acute the problems which face the directing stratum.

On the one side there is the fact that the promise to catch up with and outstrip the capitalist countries is still far from achievement as far as labour productivity and living standards are concerned.

On the other, there is the tremendous dynamism of Soviet industry which arises in part from its comparative youth, but primarily from its planned, nationalized basis: enabling it, for example, to make rapid and fuller use of such innovations as nuclear energy and automation.

But full realization of this potential requires fundamental change, not concessions or administrative reorganization on the Khrushchev pattern.

It means the coming into play at the fullest stretch of the initiatives and enthusiasms of the increasingly self-conscious and mature working class, eager to give of its best, hungry for goods, critical of privilege and hypocrisy, which will give planning a new dimension and restore 'soviet power' to the place which it held in Lenin's famous equation.

The internal political imperative, generated by industrialization, is therefore the overthrow of the bureaucracy.

In the international field the complexities are enormous because of the multiplicity of factors affected by, or affecting, Russia's industrial growth. Clearly it has profoundly affected the international balance of forces and it is from this angle that much of the attention given in the Press to Soviet industry derives.

It is not merely, however, a question of steel output or the production of intercontinental missiles. The capacity of the USSR to extend aid to former colonial countries, as well as to China and Eastern Europe, and, by assisting their economic growth, strengthening their resistance to imperialist pressures, is growing.

Soviet goods will undoubtedly appear more frequently, in greater quantity and variety in world markets, in competition with the traditional capitalist exporters. Whatever the full consequences of these trends, they reflect the underlying fact that even from the standpoint of its inner forces and interests the USSR is compelled to look outwards, thus re-enforcing the necessities of the world political situation.

Isolation is no longer possible or desirable. In their brash and clumsy way this has been sensed by the bureaucracy, as shown by the incessant comings and goings of the Kremlin Globe-trotters—designed to bolster up their own security in an explosive world.

The resurgence of the Soviet working class will give this trend a new significance and provide not merely a moral but also a material basis for strengthening the cause of world socialism. Thus will the aspirations of October find their realization.

GEORGE I. LORMIN

## UNSOLVED PROBLEMS OF KOLKHOZ AGRICULTURE

THE PROBLEMS of Russian agriculture are interlocked at every point with those of economics and politics in general. In giving the land to the peasant the Revolution of October only did more completely what had been done by bourgeois revolutions elsewhere.

There still remained the dead weight of the rural mass, with its stubborn adherence to old ways, its primitiveness, its limited horizons. To give the land to the peasant closed a page in Russian history; but it could not and did not guarantee that the next chapter would prepare the way for socialism. Everything depended upon the ability of the revolutionaries to carry the peasantry with them in an unprecedented agrarian transformation. Fragmentation of land holdings, ignorance and backward technique, lack of capital,

inadequate transport, ill will here and open opposition there, all complicated by civil war and intervention, constituted immense physical and moral obstacles to this change. Industrial disorganization, in addition, made it impossible for many years to secure a smooth flow of goods into the rural market to encourage the peasant to increase his surplus and make it available to the town. The resort to the New Economic Policy eased some of these problems by a retreat; it gave rise to others that were no less fundamental which it was the task of policy-makers to foresee and prepare to counteract as a political as well as an economic task. In particular, the return to the market and private accumulation was a gift to the richer peasants and increased still further their social weight in the village; and they, of course, had the marketable surpluses. Forces were set in motion which would oppose further

change in a socialist direction and provide a political basis for restorationist trends.

Then as now the raising of Russia's output per head meant siphoning off population from the countryside while expanding production of food and industrial crops and contributing to capital formation in industry. But this had to be done in conjunction with the transition to socialism in a period when the circumstances were not propitious for either. The sheer weight of Russia's backwardness had to be faced; the isolation which complicated the whole problem was in some measure a result of errors on the international plane—but that is another story. In any case the solution could be applied only as part of a coherent long-term economic policy.

This long-term perspective was the agglomeration of holdings into larger, compact units suitable for mechanization and the use of advanced techniques. It meant substituting large-scale production for small; machine methods for traditional husbandry; collective ownership and labour for individual ownership and appropriation, social differentiation and exploitation. In short, the 'industrialization' of agriculture together with its socialization. These requirements were seen clearly enough in the twenties by the Left Opposition, which pointed to the strengthening of the kulak by NEP as the main danger in the village, which had to be met by countervailing State action and, through patient explanation and example, the winning of the middle and poor peasant to the cause of collectivization. There was, however, a great temptation to rely upon the richer peasant's ability to organize farming for the market; which meant strengthening rural capitalism and in the long run prejudicing the proletarian dictatorship. At the other extreme was the policy actually pursued—after years of acquiescence in the growth of kulak prosperity the sudden turn: accelerated collectivization, without waiting for the long process of persuasion and example to do its work; and the physical removal or extermination of the recalcitrant.

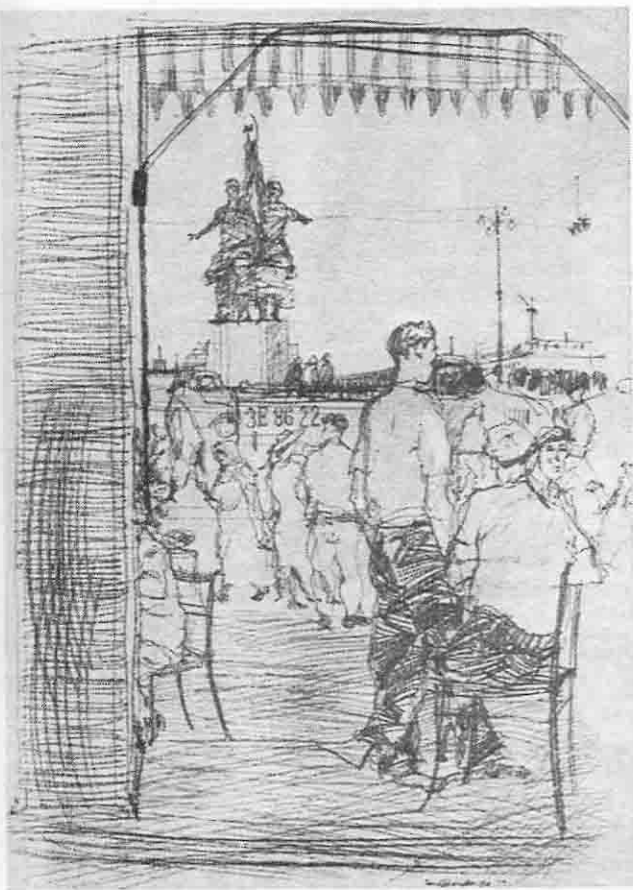
It was a choice based on the gambler's stroke, arising from

weakness and consciousness of growing danger and lost time. Costly in life, critical in its immediate effects on food production, risky from the standpoint of both domestic and foreign policy, demoralizing in the police methods with which it was accompanied, forced collectivization was a bitter episode in Soviet economic development. Not, of course, because it was collectivization; to that there was no alternative if Russia was to remain on the socialist road; but because the means by which it was accomplished were neither justified nor necessary.

Now, for over a quarter of a century, the kolkhoz has been the basic unit of Soviet agriculture, the model for that of the 'new democracies'. Does it merit the praise of the enthusiastic visitor? Is it to be understood in the statistics and legal formulas of the propagandist? Is it serfdom restored at a higher level, as we sometimes hear on both the Left and the Right? The nearest we can get to a short answer is that the kolkhoz is a complex of contradictory tendencies and influences, changing and evolving together with Russian society as a whole. There is differentiation between kolkhozes. There is stratification within the kolkhoz. There are the compulsory deliveries to the State side by side with the family plots and the flourishing kolkhoz markets. While facilitating Russian industrialization, the collective farm has not enabled food production to rise at the necessary rate. Indeed, in the past few years frank admissions of shortcomings, spectacular new turns in agricultural policy, a succession of concessions to the kolkhoz peasants, attacks on bureaucratism, defalcations and abuses of various kinds and promises to the consumers have reflected the unsolved problems of the agrarian sector of Russian economy.

In their nature these problems have been common to it for thirty years or so. They are not primarily technical in their nature: susceptible to solution by progress in agronomy and greater mechanization. They go hand in hand with all Russia's economic and political problems and will find their solution only as these latter are solved, and, like them, in relation to the whole international context. There is no agricultural policy which can in and by itself solve Russia's food problem: though an ambitious scheme launched with all Khrushchev's brio, and tempered with a few inexpensive concessions here and there, can do something to divert attention from it for a while. The balance sheet of the virgin lands project has yet to be drawn up. The attempt to raise output of meat, dairy produce, etc., looks unreal and, in any case, involves a strengthening of the individualist sector of the kolkhoz. The promises on future food consumption tell much about contemporary stresses but do not overcome the problems which cause them.

In so far as these arise in, or concern, agriculture, however, a number of points can be made. In the first place, the process of shifting population from agriculture to industry cannot be considered at an end if continued progress is to be made in production and productivity. Some 43 per cent. of the population is still rural, against 10 per cent in the USA. By this test too many people are needed to feed Russia—at a level well below that of the USA—and agriculture is therefore relatively inefficient. It needs more machines and equipment, more fixed capital, more and better fertilizers and insecticides, improved organization to cut down on administrative overheads and make more economical use of labour—including the raising of the status of labour on the kolkhoz. The ball is tossed to the town, which makes the things that can raise labour productivity in the village—or rather it is tossed to the plan which determines the composition of industrial output. And it has to be borne in mind that the villagers need not only farm equipment but also more and better consumer goods. The town worker needs more food and he wants better quality, too: better and cheaper supplies of those foods which go with rising living standards. At the same time rural standards of housing, hygiene, culture and so on will have to be raised closer to those of the town—where the field for improvement is, of course, also enormous. The demand for better living, an end to privilege and unjustified inequalities, a return to democracy are irrepressible; urban and rural workers alike make the same claims. We can speculate that the former outrun the latter in the sharpness of their demands. We may assume that the kolkhoz farmer is assimilating the concessions of recent years and that, because of his rural environment, he develops more slowly than his town comrade. But this may be no more than a latter-day 'under-estimation' of the peasantry which events will not be slow to disprove.



Moscow: Beer Garden at the Agricultural Exhibition  
(Drawing by PAUL HOGARTH)

HYMAN LEVY

## SOVIET PHILOSOPHERS IN THE DOLDRUMS

THE SOVIET UNION was the first State since medieval times consciously and deliberately to give public expression to the basic ideas of its development, to lay down its social purpose as a natural part of the process of history, and to present the whole in a total world outlook. The seeds of this were planted approximately one hundred years ago by Marx and Engels in their *Communist Manifesto*, and now forty years have elapsed since the Russian Revolution began the new epoch, when the detailed application of Marx's mode of analysis to social and economic problems on a large scale became a possibility. The *Manifesto* was the first challenge to capitalism in sharp and unequivocal terms. Today it is possible to assess what has in fact been achieved. That challenge and the Revolution, seventy years later, have naturally to be seen in the social and historical context in which they were made. Based on a reading of the past, the *Manifesto* was, as it were, the theory of future action. The Revolution was its practical outcome, and today the world and the Revolution are very different from what they were. World capitalism and imperialism are definitely on the retreat and on the defensive.

It follows on Marxist grounds that various ideologies and philosophical schools that have performed their social function in the past, and that have been much in vogue during the height of that period, are likewise fading away, and that the philosophy of dialectical materialism will increasingly hold the attention of many people. The physical world and the social organization itself, since they make direct impact on the mass and on individuals, are naturally reflected in their modes of thought.

### Stress and emphasis altered

But the new society is not developing uniformly. Within the Soviet Union itself the world picture, as seen from one half of a changing situation, will also alter its stress and emphasis. For new problems of a specifically socialist nature are bound to arise in practice out of the new experience, and this unique situation in history must provide new understanding. For these reasons dialectical materialism must be a growing and creative philosophy; whatever Soviet philosophers say or do (even if they say nothing) reflects the society that is evolving.

Changes of viewpoint cannot be expected to occur suddenly. The first phase of the Revolution involved an acute life or death struggle in a hostile encirclement of capitalist Powers, and this naturally called for the sharpest of discipline. Now one of the vital differences between dialectical materialism and all other philosophies lies in the fact that it provides the means for its adherents to see themselves precisely in this kind of social setting.

To what extent, one could then ask, does the exposition and development of the philosophy consciously reflect this initial period of discipline? What are the necessities and what are the freedoms of the period? To put it rather more deeply and more dialectically: what are the **necessary restrictions** and what are the **necessary freedoms** in all forms of practice and analysis, in order that the social body may grow effectively?

The struggles that have gone on around such problems as the role and function of art in society, and questions of socialist realism, certainly reflect a keen appreciation of how art, literature and music are affected by and may affect social perspectives and human understanding in the existing situation; but they have rarely shown any appreciation of the temporary nature of the emphasis which is being laid on these matters as a reflection of the **present** phase of socialist development.

This is important because when one talks about the **necessary** freedoms and the **necessary** restrictions, the nature of the necessities is itself bound up with the more immediate temporary social situation. Much of the sharpness of the struggle could have been obviated by a full and public appreciation of this point.

This is a simple basic point in dialectics that arises first, from the fact that Soviet society and the world around are changing; and, secondly, from the fact that an appreciation of **necessary** restrictions is itself the open door to the wider intellectual freedoms that are vital for writers and philosophers and scientists, and without which they can create nothing at all.

Now there is a curious fact in this connexion that stands out sharply. Whereas science and technology (particularly the latter) were more backward in tsarist Russia than in the rest of Europe at the time of the Revolution, they have now forged ahead to probably the foremost place in the world, in some respects probably far ahead of the rest of the capitalist world. On the other hand the leaders of the Revolution, from the standpoint of materialist philosophy were already the most advanced of any revolutionaries in the world.

### No major philosophical contribution

This fact explains the tremendous emphasis they have placed on the social importance of literature, art, philosophy and of course science—unlike political leaders anywhere else.

**Yet, curiously enough, it seems impossible to put one's finger on a major contribution of any significance in philosophy since the Revolution. The contrast between Soviet science and Soviet philosophy is too sharp to be ignored.**

This cannot be due to a difference in biological make-up between scientists and philosophers. The roots must lie in the social structure and the atmosphere in which it is being built up. In capitalist countries the methodology of science has been much developed, mainly by those of the Left who have used the dialectical method. There has been little of this in the Soviet Union and hardly any indication that they have been much interested.

Again, it is clear that the major works of Marx and Engels, since they were produced in the latter half of the nineteenth century, owe much of their inspiration to the fact that these two men were witnessing the coming of a modern machine age. Their great achievement was to draw lessons from this that transcended the limitations of that phase of capitalism; they saw the possibility of a wider scientific approach that would have meaning for social process brought into being by conscious group activity.

But no human being can entirely cleanse himself of his time. One must expect therefore that deeply embedded in the works of Marx and Engels, and indeed of Lenin also, would lie some elements of a mechanistic outlook.

### Lack of critical study

Take for example the concept of laws of nature, of causality, of necessity in the inanimate objective world. Are these laws in the sense that they could not be otherwise? Are laws merely convenient methods of summing experience, and so dependent for their so-called 'necessity' on a strong sense of expectation? Does this mean that this kind of necessity has in fact been imported into inanimate nature from our own feelings in an anthropomorphic way?

These and many other such questions would certainly appear to be worthy of the attention of Soviet philosophers, and should have been resolved by this time. But one looks in vain for any serious study of the imprint which the capitalism of the nineteenth century left on Marx, Engels and Lenin, and of any careful handling of such issues as I have mentioned.

This lack of critical study is probably not unconnected with something that looks different at first sight. In capitalist countries during the past two decades philosophers have given much thought to such fields as pragmatism, logical

positivism, the place of linguistics and logical symbolism in the formulation of philosophic questions. From the Soviet side have come sharp criticisms of these, usually well merited, showing that they are in fact various modes in which idealism presents itself in the capitalist world.

But every human venture also has a positive content, and there has been little indication that Soviet philosophers have been prepared to seek this positive content and use it for their own purposes. Marx stood Hegel on his head, but he used his blood circulatory system nevertheless. Marx's dialectical debt to Hegel can hardly be overemphasised.

This weakness, which undoubtedly will finally be remedied, lies, I should think, in something to which I have already referred. Science and technology are concerned with simple direct truths the evidence of which is immediately apparent in social practice. Apart from the basic truth-value there are no values in science other than those that emerge out of its social applications. Thus there are no necessary freedoms or necessary restrictions involved except those that

arise from a general scheme of planning in research.

In the ordinary mode of speech in capitalist countries, scientists in the Soviet Union have 'freedom of thought', and the authorities require them to have it. But the content of much philosophy is concerned with values, and unless the necessary freedoms and the necessary restrictions have themselves been made clear from the beginning, the creative ability of the mind is thereby impaired. This itself is a weakness in philosophic outlook and probably arises, as I have said, from the stresses and strains of the initial establishment of a secure Soviet State.

If science and technology succeed in helping to put that State in an impregnable position, as they appear to be doing, we may expect in the near future a rapid change in what might be called 'ideological freedom of thought in philosophy'. Without this very little more than re-exposition of well-established viewpoints is to be expected, coupled with a criticism only of what is being done by philosophers in the capitalist sector of the world.

J. H. BRADLEY

## Secrecy, Mistakes and Crimes Have Not Stopped Science Forging Ahead in the USSR

ONE IS justified in speaking of Soviet science, rather than universal science, only because it possesses certain special characteristics. These do not consist in some special outlook (despite Zhdanov) but are:

- 1) A large scale systematic investigation of natural resources;
- 2) An abundance of men, money and materials;
- 3) Massive information services to ensure that no foreign work is overlooked;
- 4) Much attention to the interchange of knowledge and techniques between different fields of science;
- 5) Attention to the most rapidly developing branches of science (called 'growing points');
- 6) Work on problems requiring teams of several kinds of specialist;
- 7) Public responsibility for scientific policy; and
- 8) The greatest possible use of science for public welfare.

These features are the principal causes of the presence of scientists in the Left-wing movements of other countries.

A great deal of ignorance and many cheap sneers against Soviet science persist in the West, particularly in view of the grandiose schemes attributed to Stalin and the single-minded advocacy of maize or virgin lands by Khrushchev.

Yet such dogmatists can make any headway with their schemes only because a huge programme of investigation—geological, biological, meteorological, etc.—was begun about 1930, and is now yielding fruits.

Those failures which have occurred have been nothing to compare with the monkey-nuts scheme, conceived in greed and born in ignorance of the factors involved.

It is in fact characteristic of Soviet society that politicians have to pay at least lip service to science, and to a large and increasing extent posts of high responsibility are held by technical men.

Another of the myths—that Soviet scientists know nothing of foreign work—will not be supported by the most cursory examination of any research publication, and survives only because so few Western scientists read Russian.

Every major scientific book is translated (without payment of royalties); collections of important papers in each field are printed every few months; and the abstract journal Referativnii Zhurnal is an example to the world.

A little research will show that the physics section of

Referativnii Zhurnal carries about 2,700 abstracts of books and papers each month, compared to about 1,000 for the Anglo-American Physics Abstracts, reduced to a comparable basis.

This includes all the work in Chinese, Japanese and Arabic, which is not abstracted anywhere else.

When it is reflected that 2,700 abstracts come to about 30,000 printed pages per month, it is clear that the systematic and organized Soviet Institute of Information is the only rational method of attacking the problem of scientific communication.

The situation is now so bad that the rights of the English translation of one section of Referativnii Zhurnal have been bought up by a British publishing house.

The translations of several major Soviet journals, which it is now found necessary to publish in Britain and America, will rapidly destroy any illusions as to who is ignorant of whose work.

An interesting sidelight is provided by comparing the relative prices of the English and American translations of *Atomnaya Energiya* [Atomic Energy]—£3 per year for the whole journal (about forty papers), as against eight dollars per issue.

Soviet science suffered from an acute shortage of money up to about 1950, and much Soviet work used primitive (because cheap) techniques.

One wonders how much the enormous ideological battles in Soviet science around 1948 had to do with this transformation.



The building of the new Moscow University, the Joint Institute for Nuclear Research and many other projects larger than anything in any other country has given proper scope to science, and shows a deep awareness of its importance on the part of some, at least, of the members of the Soviet government.

Such a programme can be carried out only by a rational policy over many years.

To train a scientist, from the first elementary lessons to graduation from a university, takes eight to ten years. For a section head to acquire adequate experience takes ten more.

One essential step is to have enough scientific school-teachers, and part-time teaching was for many years a marked feature of the Soviet system.

Some would, of course, say it was desirable in itself for its stimulating effects.

It is clear that the present state of Soviet science is based on the training of Joffe in Germany, Kapitsa in Cambridge, and many others elsewhere, around 1930, backed up by a steady preparation of large numbers of potential scientists in the schools.

Our politicians have just begun wailing about the Soviet 'technical threat', but have no intention of learning the obvious lessons, though competent scientists estimate that it is between five and twenty years too late to raise our living standards to the potential Soviet levels. Edward Teller recently admitted that the USA will now inevitably be outclassed.

While most of Soviet industry is backward by our standards, the utmost effort is concentrated on plants far ahead of the rest of the world: the various motor-car factories, the ball-bearing factories, the giant excavators and cranes, reflect a rational policy of introducing primarily the most advanced machinery.

At the same time the basis is being laid for tackling all those tedious and degrading unskilled jobs on which a large part of the human race is employed.



One could have wished for a great deal more in this respect, yet only socialism has created the conditions in which it is possible to begin to imagine how to render unnecessary dustmen, shop assistants, transport workers, stevedores, etc., and to free men for work which requires the full use of all their faculties.

It is foolish to imagine that the machines which will replace these people will be cheaper than hand methods, at least for some decades.

It is therefore only under some urgent political stimulus that the problem will be tackled at all; there is no sign of any such stimulus in the capitalist market, where machines are introduced only when they are cheaper than men.

Many problems of automation—particularly in the biological sciences, or in fields where automation is desirable for purely social reasons—require extensive team work.

The penetration of methods of measurement designed by physicists into the chemical, biological and geological sciences is a well-known but rather trivial example.

Much more important are the penetration of physical and chemical concepts of the structure and processes of organisms (their mechanisms, with no ideological connotation, despite Zhdanov) into biology, the opening up of the properties of very large molecules and very complex systems.

Metallurgy is well on the road to becoming a very precise science, though many of the theoretical problems involved in work on the properties of solids are of great difficulty.



Another very beneficial study, which most regrettably seems to be altogether lacking, would be a coherent investigation (as contrasted with abundance of popularizations) of collaboration on one of the great construction schemes, involving geologists, hydrologists, several types of engineer, botanists, zoologists, agronomists and other specialists.

Even at the level of the physicist and chemist becoming 'methods men', one may cite the development of electronic computers; spectral analysis of metals and organic compounds; mass-spectrometric investigation of reaction mechanisms and molecular structure; isotopic, X-ray and neutron methods in geology; chromatographic analysis; the electron microscope; ultrasonics; and thousands of other applications.

The complaints of Academician Tamm and the Physico-Mathematical Section of the USSR Academy of Sciences about insufficient attention to interchange between sciences (not about political control, as suggested by the New York Times) show a characteristically Soviet attention to these matters.

In spite of these unique and revolutionary facts, there are also many ugly and undesirable phenomena in Soviet science.

No pure scientific problem has been solved as a result of the application of Marxism.

It is only fair to note that scientific method is largely the same as Marxist philosophy: unlike those obscurantists who now pose as their followers in Britain, Marx and Engels had a detailed knowledge of contemporary science.

There is no well-defined philosophy opposed to Marxism which is held by any appreciable number of scientists.

The energy which has gone into attacking 'positivism' and 'idealism', would often have been better devoted to overcoming empiricism, which is in practice the danger most frequently met in scientific work. Empiricism is a crude, anti-theoretical, suck-it-and-see outlook, and is particularly common among British scientists.

Yet worse than the waste of time in quantum mechanics is the open suppression of certain points of view in genetics, cytology, physiology, psychology, cybernetics and statistics.

Few will dispute that the State which pays the piper may call the tune of practical applications; but in the USSR whole fields of academic research were closed down, not by convincing scientists that they were pointless, but by arbitrary administrative and secret police action.

It is a matter of opinion whether the views of Lysenko, Lepeshinskaya or Pavlov were more Marxist than those of their opponents.

Nothing can excuse the murder of the physiologist and geneticist Vavilov, or the attribution of the help he gave Michurin to Lysenko.

A flagrant example of the damage done by political ignoramus was in the suppression of the school of Andronov and Khaikin on non-linear oscillations and control systems.

Their classical book is about to be republished, but the second part promised in 1937 can never appear.

The whole suppression of cybernetics (developed in America about ten years after the work of Andronov) has hindered automation very seriously, even in such elementary matters as automatic telephone exchanges.

Yet it would be naïve to suppose that the publicity given to this monstrous stupidity in the USSR means that similar things do not happen here.



They cannot happen so easily; it is difficult to make them official policy; but they get no publicity and are far more difficult to correct.

A great deal of damage has been done by the unprecedented secrecy still imposed on Soviet nuclear physics, in which the number of Soviet publications cannot possibly represent all the work done with the huge resources available.

Very pertinent is the story of the physicist who lectured in Paris in 1954 on his work carried out on the 680 MEV synchro-cyclotron; when asked where it was located, he said he 'did not know'.

Secrecy rots all scientific work, not only by removing all possibility of criticism, but by preventing free exchange of ideas, by causing duplication due to facts being kept from the men who need them, and worst of all, by destroying scientific integrity itself.

A scientist cannot always ask for the facts he needs; he has to know enough to realize what would be useful.

Under conditions of secrecy, a biologist who knew about ordinary microscopes and their limitations would never dream of the existence of the electron microscope; a man working on blood types would never look for help to radar waves; yet they would benefit by doing so.

Professor Bernal has said that there is convergent research, directed to the solution of a particular problem, and there is divergent research, directed to finding uses for a particular method or technique.

Secrecy almost completely prevents the latter method. A socialist country ought to lead in the free availability of all scientific and technical knowledge and the maintenance of economic liberty.

Large sums are wasted in the USSR in publishing the collected (or selected) works of contemporary authors, such as Lysenko, Pavlov, Michurin and S. I. Vavilov (the physicist).

None of these is any use as a text book or reference book. A biographer could easily find the originals, the historical interest is doubtful, and except in the case of Vavilov publication seems to have been dictated by ideological motives.

Such crude propaganda has a boomerang effect, as scientists are quite capable of evaluating the work involved without such bulky and unbalanced volumes, and poor and blatantly subsidized translations.



There is one very amusing effect of Soviet ideology on science. In every solid there are electrons present, which move about within the solid. Such an electron can have only certain definite amounts of energy (or velocities), not any energy whatever.

These so-called 'permitted energy levels' can be calculated in two separate ways, both approximate.

That method which starts with atoms and makes allowances for their interaction was developed in the West (localized atomic orbitals method); the method which treats the solid as uniform throughout and makes allowances for the atoms was developed in the USSR (collective electron model (sic!), Blokh functions, etc.)

The matter goes deeper, for Soviet science is characterized by a great—even a dogmatic and excessive—insistence on interaction with the environment.

The social significance of Soviet science consists not merely in the copying of Western techniques and methods which it has permitted, and which was indispensable to industrialization.

The scientific outlook, with its systematic investigation, absolute respect for facts, and rational planning, is permeating Soviet society from the technicians (often so stupidly classed as 'bureaucrats' by the accidentally or wilfully ignorant) outwards.

## A SOCIALIST DOCTOR

# HARD-WON, IF UNDRAMATIC, MEDICAL SUCCESSES

DURING THE ERA of the establishment of the Soviet State, Western medicine has produced such dramatic advances as the discovery of chemotherapy and antibiotics; the theory of stress disease with the associated discovery of cortisone and its related drugs; immense improvements in sedation and anaesthesia, making possible tremendous progress in surgery, particularly of those regions previously thought to be unassailable except within very narrow and hazardous limits—regions such as the heart and the brain.

Beside such details, contributing to a picture of impressive technical achievement, the story of medicine in the Soviet Union lacks the drama and sensationalism which appeal to the ordinary man in the street, leaving him condescendingly cynical towards its claims for recognition.

These claims are none the less based on solid achievements not less admirable because their progress has been slower and less suitable for headline material. In one field of health, the Soviet Union has led the whole world—namely, in the organization and administration of the health services in such a way as to emphasize the prevention of disease before its cure, and the promotion of health as being a higher aim than its mere recovery. Even in this country, we view with pride the benefits resulting from the wide availability of the whole health industry under the National Health Service, but the establishment and growth of the Soviet health services took place against a vastly different economic and political background from that which coloured our own advance in 1948.

There is little need here to elaborate the enormous political difficulties consequent upon the 1917 Revolution and the subsequent years of foreign intervention, nor to describe the economic poverty of the ravaged country. More appropriately, mention must be made of the state of health of the population when the Soviet government came to power, and of the resources available at that time for the alleviation of disease. According to Gantt ('Russian Medicine', New York, 1937) the consequences of the first world war produced an effect on health 'probably involving larger numbers and causing more disease than any other war or calamity in the medical history of Europe'. Following this, from 1919 to 1923 famine affected about 75 per cent. of the population, and was accompanied by epidemics of typhus and relapsing fever of enormous magnitude, and by lesser though still serious epidemics of

However vast the mistakes and crimes which have occurred—and may occur yet—the host of scientists, engineers and technicians being trained in the USSR have a scientific outlook upon the whole world.

Hero-worship, anniversaries, parades, slogans, dogmatism, interminable 'reports' are utterly alien to science.

The security police can ensure the use of known techniques, though inefficiently; it can only hinder the development of nuclear power stations, artificial satellites, automatic machines, and anything requiring extensive original thought.

The bureaucracy has rendered itself obsolete, and since the doctrine of the conflict between the forces of production and the relations of production applies to socialist, as to all other societies, any attempt by the bureaucracy to stand in the way of its own replacement can only lead to an aggravation (even to the point of revolution) of those troubles which have afflicted Mr. Khrushchev with the students.

In plain English, technical evolution must lead to social change.

\* \* \*

The Stalin era was brutal and criminal, but Soviet scientists never forgot that science can and must ensure the full utilization of all human and natural potentialities and the full rationalization of human life.

smallpox and cholera. The terrible picture was further shadowed by the millions of refugees who wandered over Russia in search of food. Not surprisingly in such breakdown of organization and standards, cannibalism appeared, and a Russian physician commented: 'The gravity of our epidemic situation, the numbers of its victims and the suffering it occasions are as nothing to the horrors of the famine.' (Tarasevich, quoted by Gantt, op. cit.)

To deal with this outcrop of hell were perhaps 20,000 doctors—less than three for every 20,000 of the population. But they were not evenly distributed; many had been mobilized into the Army during the war against Germany; those who had not died were themselves ill in many cases, and large areas of Russia were without any effective medical staff. On the Volga, for example, with the epidemic at its height and one out of every twelve ill with fever, there was only one doctor in a community of 180,000 people. Moreover, under the tsars, no public health organization had been established, though some attempts were made to organize sanitary services through the existing zemstvo organizations—provincial health boards which undertook such organization of medical care in the vast areas of the Russian countryside as limited funds and personnel made possible. Suitable drugs were impossible to obtain, an important factor in the spread of diseases such as syphilis (in some areas, 80 per cent. of the population were infected, according to Semashko). Hospitals were impoverished, and in any case had a reputation even worse than our own Poor Law Institutions—a reputation not enhanced at that time by the current lack of bedclothes, mattresses, soap and hot water.

Building upon this apparently hopeless beginning, the Soviet government has established a free health service available to all its citizens (though drugs and dressings for use outside a hospital must be paid for by the patient); has brought under control the pestilences which ravaged the country in the twenties and again, though on a much smaller scale, during the famine years of the early thirties; and has reduced infant mortality—customarily regarded as the index of health standards—from as much as 54 per cent. in some regions before the Revolution to a figure comparable to those of the prosperous western countries today.

The number of doctors in the Soviet Union today is over 300,000—a ratio of over three doctors to 2,000 population. These are augmented by the activities of feldschers, trained health workers who are stationed in the remoter outlying dis-

tricts, and who carry out preventive measures, and occasionally therapeutic ones too. This form of medical auxiliary existed prior to the Revolution, but has been expanded considerably since. Feldscher-midwives have also been trained in large numbers, and fulfil an obvious function in regions where full medical services for the care of the expectant mother and her child are too difficult or too expensive to provide. Despite the fact that these auxiliaries are not qualified doctors, their role in the health services of the USSR has been found sufficiently important to warrant a doubling of the number of feldschers and a five-fold increase in the number of feldscher-midwives since tsarist days.

Following hard upon the terrible days of famine and vast epidemic, the rapid programme of heavy industrialization of a predominantly agricultural country brought its own health problems. The transfer to the towns of large numbers of illiterate peasants was inevitably responsible for a threat of further spread of disease due to overcrowded and insanitary conditions and the exposure of a population lacking the acquired resistance of the town dweller to infections such as tuberculosis. More than this, the entry into modern factory life of these inexperienced and uneducated workers created enormous problems of industrial safety, welfare and hygiene. A vast programme of education and training in accident and disease prevention was inaugurated, and has been expanded constantly ever since, with gratifying improvements in the industrial accident rate, and, more important from the socialist health point of view, an increasing emphasis on methods of prevention by prophylaxis, on the education of the people in health matters and their entry upon responsibility for their own standards of health.

Side by side with this has gone an expansion of facilities available to the health industry in terms of both personnel and capital resources. A number of uncommitted observers have paid tribute—not always uncritically, but never captiously—to the standards prevailing since the second world war in Soviet hospitals and polyclinics. F. H. Ellis, an American surgeon, reported in an article published in the *Archives of Surgery* (an American Medical Association journal) in 1956 on the state of surgery in the Soviet Union, and wrote among other things:

'Surgery for tuberculosis has developed rapidly. . . . Oesophageal surgery is rather advanced. . . . A variety of radioactive substances is available for both the treatment and investigation of diseases. . . . [Russian surgeons] were intelligent and well-informed, and their questions reflected good training and background.'

It would be unfair to present the substance of this article as so consistently eulogistic: in fact Ellis makes a number of criticisms and comparisons which detract from the generally favourable picture he presents.

If the achievements of Soviet medicine are best measured by the total improvement in health of the vast population, this must not lead to an underestimation of the contributions made since 1917 by their medical and scientific research

workers. The outstanding work, which is still continuing, has been that of Pavlov and his followers. Here indeed is the universally known and accepted dramatic theory, which has influenced medical thought throughout the world, and has certainly influenced the course of Soviet medical research. Indeed, it has been suggested that the authoritarian emphasis on the Pavlovian basis of medicine has resulted in a loss of critical analysis essential to scientific research.

This is not the only factor which has helped to retard Soviet medical and scientific research. The political ukases laying down the correctness of Michurinism and Lysenkoism inevitably had a sterilizing effect; and the general political background, culminating for the medical profession in the now notorious 'Doctors' Plot', completed the castration. As long ago as 1935, A. V. Hill drew attention to the isolation of Soviet scientists due to their inability to travel abroad and the lack of foreign journalists. For many years, as we now know, correspondence with other countries produced grave suspicion of the correspondent's bona fides as a Soviet citizen, and the promulgation of ideas current in other countries too easily called forth accusations of 'deviationism' and 'imperialist intrigue'. In some sense, this was a reaction against the previous dependence of Russian medicine on other western European countries—a dependence which was still sufficiently traditional at the time of Lenin's last illness to lead to the summoning of a group of German physicians for consultation.

In a most valuable brief survey of existing Soviet services, Dr. T. F. Fox, editor-in-chief of *The Lancet*, remarked, following a visit in 1954:

'Some of the institutes we visited were splendidly equipped and their staff were clearly of a high quality. But I cannot believe that they will play their full part in the development of medicine until their research workers are able to work without looking over their shoulders. . . . Russian investigators will remain under a grave handicap so long as those who accept western discoveries or ideas know that they are liable to censure as "lackeys of bourgeois science" or worse.'

The results of this are seen, inter alia, in the current backwardness, acknowledged by Soviet surgeons, of cardiovascular surgery in the USSR; and in the appearance of papers reporting research work now being carried out in the Soviet Union (for example, on blood groups) which has already been done in other countries, and apparently more effectively, accurately and self-critically.

Despite these and many other difficulties and setbacks, one must recognize the advances in medicine resulting from the work of Bogomoletz on cancer; of the late Professor Yudin on the uses of stored cadaver blood, and in oesophageal surgery; of Orbeli on the physiology of the central nervous system; and of many other Soviet investigators in the whole field of medicine. In this, as in other spheres of Soviet activity, the sincere socialist has learned the dangers of uncritical adulation, and must now learn to combine sober admiration for hard-won success with friendly judgment on honest failure.

BEATRIX TUDOR-HART

## Theories and Practice of Soviet Psychologists

PSYCHOLOGY is the study of man's behaviour, his mental growth and development, his actions and reactions to his environment, the influence he has on his environment and the influence this has on him.

'Mind' has two definite interpretations, depending on whether the interpreter is an idealist or a materialist.

In the western European and American countries the majority of psychologists are idealist and in so far as they postulate a 'theory' of mind, it is one of some power external to the brain which utilizes this latter.

It is this idealism which has made possible the theory of inherited intelligence and abilities which are unalterable and are testable at any age by the so-called intelligence tests.

This theory, which began to be put forward by Sir Cyril Burt during the first world war, has only recently come to be recognised empirically as completely false.

In the Soviet Union a materialist philosophy underlies all sciences and it was therefore automatic that psychology had to find a new basis.

During the twenties and thirties several 'schools', each claiming to have a materialist basis for human consciousness and behaviour, struggled for recognition.

John McLeish, in the *Society for Cultural Relations psychology bulletin* for March 1956, quotes four such schools:

- (1) Kornilov's 'reactology';
- (2) Bekhterev's 'reflexology';