

Text of Essay by Russian Nuclear Physicist Urging Soviet-American Cooperation

Following is the text of an essay, titled "Thoughts on Progress, Peaceful Coexistence and Intellectual Freedom," by Academician Andrei D. Sakharov, Soviet physicist, as translated by The New York Times from the Russian manuscript:

The views of the author were formed in the milieu of the scientific and scientific-technological intelligentsia, which manifests much anxiety over the principles and specific aspects of foreign and domestic policy and over the future of mankind. This anxiety is nourished, in particular, by a realization that the scientific method of directing policy, the economy, arts, education and military affairs still has not become a reality. We regard as "scientific" a method based on deep analysis of facts, theories and views, presupposing unprejudiced, unfearing open discussion and conclusions. The complexity and diversity of all the phenomena of modern life, the great possibilities and dangers linked with the scientific-technical revolution and with a number of social tendencies demand precisely such an approach, as has been acknowledged in a number of official statements.

In this pamphlet, advanced for discussion by its readers, the author has set himself the goal to present, with the greatest conviction and frankness, two theses that are supported by many people in the world. The theses are:

[1] The division of mankind threatens it with destruction. Civilization is imperiled by: a universal thermonuclear war, catastrophic hunger for most of mankind, stupefaction from the narcotic of "mass culture" and bureaucratized dogmatism, a spreading of mass myths that put entire peoples and continents under the power of cruel and treacherous demagogues, and destruction or degeneration from the unforeseeable consequences of swift changes in the conditions of life on our planet.

In the face of these perils, any action increasing the division of mankind, any preaching of the incompatibility of world ideologies and nations is madness and a crime. Only universal cooperation under conditions of intellectual freedom and the lofty moral ideals of socialism and labor, accompanied by the elimination of dogmatism and pressures of the concealed interests of ruling classes, will preserve civilization.

The reader will understand that ideological collaboration cannot apply to those fanatical, sectarian and extremist ideologies that reject all possibility of rapprochement, discussion and compromise, for example, the ideologies of Fascist, racist, militaristic and Maoist demagogues.

Millions of people throughout the world are striving to put an end to poverty. They despise oppression, dogmatism and demagoguery (and their more extreme manifestations—racism, Fascism, Stalinism and Maoism). They believe in progress based on the use, under conditions of social justice and intellectual freedom, of all the positive experience accumulated by mankind.

[2] The second basic thesis is that intellectual freedom is essential to human society—freedom to obtain and distribute information, freedom for open-minded and unfearing debate and freedom from pressure by officialdom and prejudices. Such a trinity of freedom of thought is the only guarantee against an infection of people by mass myths, which, in the hands of treacherous hypocrites and demagogues, can be transformed into bloody dictatorship. Freedom of thought is the only guarantee of the feasibility of a scientific democratic approach to politics, economy and culture.

But freedom of thought is under a triple threat in modern society—from the opium of mass culture, from cowardly, egotistic and narrow-minded ideologies and from the ossified dogmatism of a bureaucratic oligarchy and its favorite weapon, ideological censorship. Therefore, freedom of thought requires the defense of all thinking and honest people. This is a mission not only for the intelligentsia but for all strata of society, particularly its most active and organized stratum, the working class. The worldwide dangers of war, famine, cults of personality and bureaucracy—these are perils for all of mankind.

Recognition by the working class and the intelligentsia of their common interests has been a striking phenomenon of the present day. The most progressive, internationalist and dedicated element of the intelligentsia is, in essence, part of the working class, and the most advanced, educated, internationalist, and broad-minded part of the working class is part of the intelligentsia.

This position of the intelligentsia in society renders senseless any loud demands that the intelligentsia subordinate its strivings to the will and interests of the working class (in the Soviet Union, Poland and other socialist countries). What these demands really mean is subordination to the will of the party, or, even more specifically, to the party's central apparatus and its officials. Who will guarantee that these officials always express the genuine interests of the working class as a whole and the genuine interests of progress rather than their own caste interests?

We will divide this pamphlet into two parts. The first we will title "Dangers," and the second, "The Basis of Hope."

DANGERS

The Threat of Nuclear War

Three technical aspects of thermonuclear weapons have made thermonuclear war a peril to the very existence of humanity. These aspects are: the enormous destructive power of a thermonuclear explosion, the relative cheapness of rocket-thermonuclear weapons and the practical impossibility of an effective defense against a massive rocket-nuclear attack.

[1] Today one can consider a three-megaton nuclear warhead as "typical" (this is somewhere between the warhead of a Minuteman and of a Titan II). The area of fires from the explosion of such a warhead is 150 times greater than from the Hiroshima bomb and the area of destruction is 30 times greater.



Intercontinental ballistic missile on display in Red Square, May Day, 1968
"A thermonuclear war cannot be considered a continuation of politics by other means. . . . It would be a means of universal suicide."

The detonation of such a warhead over a city would create a 100-square-kilometer [40 square-mile] area of total destruction and fire.

Tens of millions of square meters of living space would be destroyed. No fewer than a million people would perish under the ruins of buildings, from fire and radiation, suffocate in the dust and smoke or die in shelters buried under debris. In the event of a ground-level explosion, the fallout of radioactive dust would create a danger of fatal exposure in an area of tens of thousands of square kilometers.

[2] A few words about the cost and the possible number of explosions.

After the stage of research and development has been passed, mass production of thermonuclear weapons and carrier rockets is no more complex and expensive than, for example, the production of military aircraft, which were produced by the tens of thousands during the war.

The annual production of plutonium in the world now is in the tens of thousands of tons. If one assumes that half this output goes for military purposes and that an average of several kilograms of plutonium goes into one warhead, then enough warheads have already been accumulated to destroy mankind many times over.

[3] The third aspect of thermonuclear peril (along with the power and cheapness of warheads) is what we term the practical impossibility of preventing a massive rocket attack. This situation is well known to specialists. In the popular scientific literature, for example, one can read this in an article by Richard L. Garwin and Hans A. Bethe in the Scientific American of March, 1968.

The technology and tactics of attack have now far surpassed the technology of defense despite the development of highly maneuverable and powerful antimissiles with nuclear warheads and despite other technical ideas, such as the use of laser rays and so forth.

Improvements in the resistance of warheads to shock waves and to the radiation effects of neutron and x-ray exposure, the possibility of mass use of relatively light and inexpensive decoys that are virtually indistinguishable from warheads and exhaust the capabilities of an antimissile defense system, a perfection of tactics of massed and concentrated attacks, in time and space, that overstrain the defense detection centers, the use of orbital and fractional-orbital attacks, the use of active and passive jamming and other methods not disclosed in the press—all this has created technical and economic obstacles to an effective missile defense that, at the present time, are virtually insurmountable.

The experience of past wars shows that the first use of a new technical or tactical method of attack is usually, highly effective even if a simple antidote can soon be developed. But in a thermonuclear war the first blow may be the decisive one and render null and void years of work and billions spent on creation of an antimissile system.

An exception to this would be the case of a great technical and economic difference in the potentials of two enemies. In such a case, the stronger side, creating an antimissile defense system with a multiple reserve, would face the temptation of ending the dangerous and unstable balance once and for all by embarking on a pre-emptive adventure, expending part of its attack potential on destruction of most of the enemy's launching bases and counting on impunity for the last stage of escalation, i.e., the destruction of the cities and industry of the enemy.

Fortunately for the stability of the world, the difference between the technical-economic potentials of the Soviet Union and the United States is not so great that one of the sides could undertake a "preventive aggression" without an almost inevitable risk of a destructive retaliatory blow. This situation would not be changed by a broadening of the arms race through the development of antimissile defenses.

In the opinion of many people, an opinion shared by the author, a diplomatic formulation of this mutually comprehended situation, for example, in the form of a moratorium on the construction of antimissile systems, would be a useful demonstration of a desire of the Soviet Union and the United States to preserve the status quo and not to widen the arms race for senselessly expensive antimissile systems. It would be a demonstration of a desire to cooperate, not to fight.

Two Doctrines Decried

A thermonuclear war cannot be considered a continuation of politics by other means (according to the formula of Clausewitz). It would be a means of universal suicide.

Two kinds of attempts are being made to portray thermonuclear war as an "ordinary" political act in the eyes of public opinion. One is the concept of the "paper tiger," the concept of the irresponsible Maoist adventurists. The other is the strategic doctrine of escalation, worked out by scientific and militarist circles in the United States. Without minimizing the seriousness of the challenge inherent in that doctrine, we will just note that the political strategy of peaceful coexistence is an effective counterweight to the doctrine.

A complete destruction of cities, industry, transport and systems of education, a poisoning of fields, water and air by radioactivity, a physical destruction of the larger part of mankind, poverty, barbarism, a return to savagery and a genetic degeneracy of the survivors under the impact of radiation, a destruction of the material and information basis of civilization—this is a measure of the peril that threatens the world as a result of the estrangement of the world's two superpowers.

Every rational creature, finding itself on the brink of a disaster, first tries to get away from the brink and only then does it think about the satisfaction of its other needs. If mankind is to get away from the brink, it must overcome its divisions.

A vital step would be a review of the traditional method of international affairs, which may be termed "empirical-competitive." In the simplest definition, this is a method aiming at maximum

improvement of one's position everywhere possible and, simultaneously, a method of causing maximum unpleasantness to opposing forces without consideration of common welfare and common interests.

If politics were a game of two gamblers, then this would be the only possible method. But where does such a method lead in the present unprecedented situation?

The War in Vietnam

In Vietnam, the forces of reaction, lacking hope for an expression of national will in their favor, are using the force of military pressure. They are violating all legal and moral norms and are carrying out flagrant crimes against humanity. An entire people is being sacrificed to the proclaimed goal of stopping the "Communist tide."

They strive to conceal from the American people considerations of personal and party prestige, the cynicism and cruelty, the hopelessness and ineffectiveness of the anti-Communist tasks of American policy in Vietnam, as well as the harm this war is doing to the true goals of the American people, which coincide with the universal tasks of bolstering peaceful coexistence.

To end the war in Vietnam would first of all save the people perishing there. But it also is a matter of saving peace in all the world. Nothing undermines the possibilities of peaceful coexistence more than a continuation of the war in Vietnam.

The Middle East

Another tragic example is the Middle East. If direct responsibility on Vietnam rests with the United States, in the Middle East direct responsibility rests not with the United States but with the Soviet Union (and with Britain in 1948 and 1956).

On one hand, there was an irresponsible encouragement of so-called Arab unity (which in no way had a socialist character—look at Jordan—but was purely nationalist and anti-Israel). It was said that the struggle of the Arabs had an essentially anti-imperialist character. On the other hand, there was an equally irresponsible encouragement of Israeli extremists.

We cannot here analyze the entire contradictory and tragic history of the events of the last 20 years, in the course of which the Arabs and Israel, along with historically justified actions, carried out reprehensible deeds, often brought about by the actions of external forces.

Thus in 1948, Israel waged a defensive war. But in 1956, the actions of Israel appeared reprehensible. The preventive six-day war in the face of threats of destruction by merciless, numerically vastly superior forces of the Arab coalition could have been justifiable. But the cruelty to refugees and prisoners of war and the striving to settle territorial questions by military means must be condemned. Despite this condemnation, the breaking of relations with Israel appears a mistake, complicating a peaceful settlement in this region and complicating a necessary diplomatic recognition of Israel by the Arab governments.

In our opinion, certain changes must be made in the conduct of international affairs, systematically subordinating

all concrete aims and local tasks to the basic task of actively preventing an aggravation of the international situation, of actively pursuing and expanding peaceful coexistence to the level of cooperation, of making policy in such a way that its immediate and long-range effects will in no way sharpen international tensions and will not create difficulties for either side that would strengthen the forces of reaction, militarism, nationalism, Fascism and revanchism.

International affairs must be completely permeated with scientific methodology and a democratic spirit, with a fearless weighing of all facts, views and theories, with maximum publicity of ultimate and intermediate goals and with a consistency of principles.

New Principles Proposed

The international policies of the world's two leading superpowers (the United States and the Soviet Union) must be based on a universal acceptance of unified and general principles, which we initially would formulate as follows:

[1]

All peoples have the right to decide their own fate with a free expression of will. This right is guaranteed by international control over observance by all governments of the "Declaration of the Rights of Man." International control presupposes the use of economic sanctions as well as the use of military forces of the United Nations in defense of "the rights of man."

[2]

All military and military-economic forms of export of revolution and counter-revolution are illegal and are tantamount to aggression.

[3]

All countries strive toward mutual help in economic, cultural and general-organizational problems with the aim of eliminating painlessly all domestic and international difficulties and preventing a sharpening of international tensions and a strengthening of the forces of reaction.

[4]

International policy does not aim at exploiting local, specific conditions to widen zones of influence and create difficulties for another country. The goal of international policy is to insure universal fulfillment of the "Declaration of the Rights of Man" and to prevent a sharpening of international tensions and a strengthening of militarist and nationalist tendencies.

Such a set of principles would in no way be a betrayal of the revolutionary, and national liberation struggle, the struggle against reaction and counter-revolution. On the contrary, with the elimination of all doubtful cases, it would be easier to take decisive action in those extreme cases of reaction, racism and militarism that allow no course other than armed struggle. A strengthening of peaceful coexistence would create an opportunity to avert such tragic events as those in Greece and Indonesia.

Such a set of principles would present the Soviet armed forces with a precisely defined defensive mission, a mission of defending our country and our allies from aggression. As history has shown, our people and their armed forces are unconquerable when they are defending their homeland and its great social and cultural achievements.

Hunger and Overpopulation

Specialists are paying attention to a growing threat of hunger in the poorer half of the world. Although the 50 per cent increase of the world's population in the last 30 years has been accompanied by a 70 per cent increase in food production, the balance in the poorer half of the world has been unfavorable. The situation in India, Indonesia, in a number of countries of Latin America and in a large number of other underdeveloped countries—the absence of technical-economic reserves, competent officials and cultural skills, social backwardness, a high birth rate—all this systematically worsens the food balance and without doubt will continue to worsen it in the coming years.

The answer would be a wide application of fertilizers, an improvement of irrigation systems, better farm technology, wider use of the resources of the oceans and a gradual perfection of the production, already technically feasible, of synthetic foods, primarily amino acids. However, this is all fine for the rich nations. In the more backward countries, it is apparent from an analysis of the situation and existing trends that an improvement cannot be achieved in the near future, before the expected date of tragedy, 1975-80.

What is involved is a prognosticated deterioration of the average food balance in which localized food crises merge into a sea of hunger, intolerable suffering and desperation, the grief and fury of millions of people. This is a tragic threat to all mankind. A catastrophe of such dimension cannot but

have profound consequences for the entire world and for every human being. It will provoke a wave of wars and hatred, a decline of standards of living throughout the world and will leave a tragic, cynical and anti-Communist mark on the life of future generations.

The first reaction of a Philistine in hearing about the problem is that "they" are responsible for their plight because "they" reproduce so rapidly. Unquestionably, control of the birth rate is important and the people, in India for example, are taking steps in this direction. But these steps remain largely ineffective under social and economic backwardness, surviving traditions of large families, an absence of old-age benefits, a high infant mortality rate until quite recently, and a continuing threat of death from starvation.

It is apparently futile only to insist that the more backward countries restrict their birth rates. What is needed most of all is economic and technical assistance to these countries. This assistance must be of such scale and generosity that it is absolutely impossible before the estrangement in the world and the egotistical, narrow-minded approach to relations between nations and races is eliminated. It is impossible as long as the United States and the Soviet Union, the world's two great superpowers, look upon each other as rivals and opponents.

Social factors play an important role in the tragic present situation and the still more tragic future of the poor regions. It must be clearly understood that if a threat of hunger is, along with a striving toward national independence, the main cause of "agrarian" revolution, the "agrarian" revolution in itself will not eliminate the threat of hunger, at least not in the immediate future. The threat of hunger cannot be eliminated without the assistance of the developed countries, and this requires significant changes in their foreign and domestic policies.

Inequality of American Negroes

At this time, the white citizens of the United States are unwilling to accept even minimum sacrifices to eliminate the unequal economic and cultural position of the country's black citizens, who make up 10 per cent of the population.

It is necessary to change the psychology of the American citizens so that they will voluntarily and generously support their government and worldwide efforts to change the economy, technology and level of living of billions of people. This, of course, would entail a serious decline in the United States rate of economic growth. The Americans should be willing to do this solely for the sake of lofty and distant goals, for the sake of preserving civilization and mankind on our planet.

Similar changes in the psychology of people and practical activities of governments must be achieved in the Soviet Union and other developed countries.

In the opinion of the author, a 15-year tax equal to 20 per cent of national incomes must be imposed on developed nations. The imposition of such a tax would automatically lead to a significant reduction in expenditures for weapons. Such common assistance would have an important effect of stabilizing and improving the situation in the most underdeveloped countries, restricting the influence of extremists of all types.

Changes in the economic situation of underdeveloped countries would solve the problem of high birth rates with relative ease, as has been shown by the experience of developed countries, without the barbaric method of sterilization.

Certain changes in the policies, viewpoints and traditions on this delicate question are inescapable in the advanced countries as well. Mankind can develop smoothly only if it looks upon itself in a demographic sense as a unit, a single family without divisions into nations other than in matters of history and traditions.

Therefore, government policy, legislation on the family and marriage and propaganda should not encourage an increase in the birth rates of advanced countries while demanding that it be curtailed in underdeveloped countries that are receiving assistance. Such a two-faced game would produce nothing but bitterness and nationalism.

In conclusion on that point, I want to emphasize that the question of regulating birth rates is highly complex and that any standardized, dogmatic solution "for all time and all peoples" would be wrong. All the foregoing, incidentally, should be accepted with the reservation that it is somewhat of a simplification.

Pollution of Environment

We live in a swiftly changing world. Industrial and water-engineering projects, cutting of forests, plowing up of virgin lands, the use of poisonous chemicals—all this is changing the face of the earth, our "habitat."

Scientific study of all the interrelationships in nature and the consequences of our interference clearly lag behind the changes. Large amounts of harmful wastes of industry and transport are being dumped into the air and water, including cancer-inducing substances. Will the safe limit be passed everywhere, as has already happened in a number of places?

Carbon dioxide from the burning of coal is altering the heat-reflecting qualities of the atmosphere. Sooner or later, this will reach a dangerous level. But we do not know when. Poisonous chemicals used in agriculture are penetrating into the body of man and animals directly and in more dangerous modified compounds, causing serious damage to the brain, the nervous system, blood-forming organs, the liver and other organs. Here, too, the safe limit can be easily crossed, but the question has not been fully studied and it is difficult to control all these processes.

The use of antibiotics in poultry raising has led to the development of new disease-causing microbes that are resistant to antibiotics.

I could also mention the problems of dumping detergents and radioactive wastes, erosion and salinization of soils, the flooding of meadows, the cutting

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Joint Action by Two Nations Viewed as Essential to Avert Perils Facing Mankind

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of forests on mountain slopes and in watersheds, the destruction of birds and other useful wildlife like toads and frogs and many other examples of senseless despoliation caused by local, temporary, bureaucratic and egotistical interest and sometimes simply by questions of bureaucratic prestige, as in the sad fate of Lake Baikal.

The problem of geohygiene (earth hygiene) is highly complex and closely tied to economic and social problems. This problem can therefore not be solved on a national and especially not on a local basis. The salvation of our environment requires that we overcome our divisions and the pressure of temporary, local interests. Otherwise, the Soviet Union will poison the United States with its wastes and vice versa. At present, this is a hyperbole. But with a 10 per cent annual increase of wastes, the increase over 100 years will be 20,000 times.

Police Dictatorships

An extreme reflection of the dangers confronting modern social development is the growth of racism, nationalism and militarism and, in particular, the rise of demagogic, hypocritical and monstrously cruel dictatorial police regimes. Foremost are the regimes of Stalin, Hitler and Mao Tse-tung, and a number of extremely reactionary regimes in smaller countries, Spain, Portugal, South Africa, Greece, Albania, Haiti and other Latin-American countries.

These tragic developments have always derived from the struggle of egotistical and group interests, the struggle for unlimited power, suppression of intellectual freedom, a spread of intellectually simplified, narrow-minded mass myths (the myth of race, of land and blood, the myth about the Jewish danger, anti-intellectualism, the concept of lebensraum in Germany, the myth about the sharpening of the class struggle and proletarian infallibility bolstered by the cult of Stalin and by exaggeration of the contradictions with capitalism in the Soviet Union, the myth about Mao Tse-tung, extreme Chinese nationalism and the resurrection of the lebensraum concept, of anti-intellectualism, extreme antihumanism and certain prejudices of peasant socialism in China).

The usual practice is the use of demagoguery, storm troopers and Red Guards in the first stage and terrorist bureaucracy with reliable cadres of the type of Eichmann, Himmler, Yezhov and Beria at the summit of the deification of unlimited power.

The Rule of Hitler

The world will never forget the burning of books in the squares of German cities, the hysterical, cannibalistic speeches of the Fascist "fuhrers" and their even more cannibalistic plans for the destruction of entire peoples, including the Russians. Fascism began a partial realization of these plans during the war it unleashed, annihilating prisoners of war and hostages, burning villages, carrying out a criminal policy of genocide (during the war, the main blow of genocide was aimed at the Jews, a policy that apparently was also meant to be provocative, especially in the Ukraine and Poland).

We shall never forget the kilometer-long trenches filled with bodies, the gas chambers, the SS dogs, the fanatical doctors, the piles of women's hair, suitcases with gold teeth and fertilizer from the factories of death.

Analyzing the causes of Hitler's coming to power, we will never forget the role of German and international monopolist capital. We also will not forget the criminally sectarian and dogmatically narrow policies of Stalin and his associates, setting Socialists and Communists against one another (this has been well related in the famous letter to Ilya Ehrenburg by Ernst Henri).

The Stalinist Period

Fascism lasted 12 years in Germany. Stalinism lasted twice as long in the Soviet Union. There are many common features but also certain differences. Stalinism exhibited a much more subtle kind of hypocrisy and demagoguery, with reliance not on an openly cannibalistic program like Hitler's but on a progressive, scientific and popular socialist ideology.

This served as a convenient screen for deceiving the working class, for weakening the vigilance of the intellectuals and other rivals in the struggle for power, with the treacherous and sudden use of the machinery of torture, execution and informants, intimidating and making fools of millions of people, the majority of whom were neither cowards nor fools. As a consequence of this "specific feature" of Stalinism, it was the Soviet people, its most active, talented and honest representatives, who suffered the most terrible blow.

At least 10 to 15 million people perished in the torture chambers of the N.K.V.D. [secret police] from torture and execution, in camps for exiled kulaks [rich peasants] and so-called semi-kulaks and members of their families and in camps "without the right of correspondence" (which were in fact the prototypes of the Fascist death camps where, for example, thousands of prisoners were machine-gunned because of "overcrowding" or as a result of "special orders").

People perished in the mines of Norilsk and Vorkuta from freezing, starvation and exhausting labor, at countless construction projects, in timber cutting, building of canals or simply during transportation in prison trains, in the overcrowded holds of "death ships" in the Sea of Okhotsk and during the resettlement of entire peoples, the Crimean Tatars, the Volga Germans, the Kalmyks and other Caucasus peoples. Readers of the literary journal *Novy Mir* recently could read for themselves a description of the "road of death" between Norilsk and Igarka [in northern Siberia].

Temporary masters were replaced (Yagoda, Molotov, Yezhov, Zhdanov, Malenkov, Beria), but the antipeople's regime of Stalin remained equally cruel and at the same time dogmatically narrow and blind in its cruelty. The killing of military and engineering officials before the war, the blind faith in the "reasonableness" of the colleague in



Soviet Premier Aleksei N. Kosygin and President Johnson at Glassboro, N. J., in June, 1967. The interpreter is Viktor M. Sukhodrev. "The rapprochement with the capitalist world . . . must rest not only on a socialist, but on a popular, democratic foundation."

crime, Hitler, and the other reasons for the national tragedy of 1941 have been well described in the book by Nekrich, in the notes of Maj. Gen. Grigorenko and other publications — these are far from the only examples of the combination of crime, narrow-mindedness and short-sightedness.

Stalinist dogmatism and isolation from real life was demonstrated particularly in the countryside, in the policy of unlimited exploitation and the predatory forced deliveries at "symbolic" prices, in the almost serf-like enslavement of the peasantry, the depriving of peasants of the most simple means of mechanization and the appointment of collective-farm chairmen on the basis of their cunning and obsequiousness. The results are evident — a profound and hard-to-correct destruction of the economy and way of life in the countryside, which, by the law of interconnected vessels, damaged industry as well.

The inhuman character of Stalinism was demonstrated by the repressions of prisoners of war who survived Fascist camps and then were thrown into Stalinist camps, the antiworker "decrees," the criminal exile of entire peoples condemned to slow death, the unenlightened zoological kind of anti-Semitism that was characteristic of Stalinist bureaucracy and the N.K.V.D. (and Stalin personally), the Ukrainophobia characteristic of Stalin and the draconian laws for the protection of socialist property (five years' imprisonment for stealing some grain from the fields and so forth) that served mainly as a means of fulfilling the demands of the "slave market."

An Unpublished History

A profound analysis of the origin and development of Stalinism is contained in the 1,000-page monograph of R. Medvedev. This was written from a socialist, Marxist point of view and is a successful work, but unfortunately it has not yet been published. The present author is not likely to receive such a compliment from Comrade Medvedev, who finds elements of "Westernism" in his views. Well, there is nothing like controversy! Actually the views of the present author are profoundly socialist and he hopes that the attentive reader will understand this.

The author is quite aware of the monstrous relations in human and international affairs brought forth by the egotistical principle of capital when it is not under pressure from socialist and progressive forces. He also thinks however, that progressives in the West understand this better than he does and are waging a struggle against these manifestations. The author is concentrating his attention on what is before his eyes and on what is obstructing, from his point of view, a worldwide overcoming of estrangement, obstructing the struggle for democracy, social progress and intellectual freedom.

Our country has started on the path of cleansing away the foulness of Stalinism. "We are squeezing the slave out of ourselves drop by drop" (an expression of Anton Chekhov). We are learning to express our opinions, without taking the lead from the bosses and without fearing for our lives.

Khrushchev Is Credited

The beginning of this arduous and far from straight path evidently dates from the report of Nikita S. Khrushchev to the 20th congress of the Soviet Communist party. This bold speech, which came as a surprise to Stalin's accomplices in crime, and a number of associated measures — the release of hundreds of thousands of political prisoners and their rehabilitation, steps toward a revival of the principles of peaceful coexistence and toward a revival of democracy — oblige us to value highly the historic role of Khrushchev despite his regrettable mistakes of a voluntarist character in subsequent years and despite the fact that Khrushchev, while Stalin was alive, was one of his collaborators in crime, occupying a number of influential posts.

The exposure of Stalinism in our country still has a long way to go. It is imperative, of course, that we publish all authentic documents, including the archives of the N.K.V.D., and conduct nationwide investigations. It would be highly useful for the international authority of the Soviet Communist party and the ideals of socialism if, as was planned in 1964 but never carried out, the party were to announce the "symbolic" expulsion of Stalin, murderer of millions of party members, and at the same time the political rehabilitation of the victims of Stalinism.

In 1936-39 alone more than 1.2 million party members, half of the total membership, were arrested. Only 50,000 regained freedom; the others were tortured during interrogation or were shot (600,000) or died in camps. Only in

isolated cases were the rehabilitated allowed to assume responsible posts; even fewer were permitted to take part in the investigation of crimes of which they had been witnesses or victims.

We are often told lately not to "rub salt into wounds." This is usually being said by people who suffered no wounds. Actually only the most meticulous analysis of the past and of its consequences will now enable us to wash off the blood and dirt that befouled our banner.

It is sometimes suggested in the literature that the political manifestations of Stalinism represented a sort of superstructure over the economic basis of an anti-Leninist pseudosocialism that led to the formation in the Soviet Union of a distinct class—a bureaucratic elite from which all key positions are filled and which is rewarded for its work through open and concealed privileges. I cannot deny that there is some (but not the whole) truth in such an interpretation, which would help explain the vitality of neo-Stalinism, but a full analysis of this issue would go beyond the scope of this article, which focuses on another aspect of the problem.

It is imperative that we restrict in every possible way the influence of neo-Stalinism in our political life. Here we are compelled to mention a specific person. One of the most influential representatives of neo-Stalinism at the present time is the director of the Science Department of the Communist party's Central Committee, Sergei P. Trapeznikov. The leadership of our country and our people should know that the views of this unquestionably intelligent, shrewd and highly consistent man are basically Stalinist (from our point of view, they reflect the interests of the bureaucratic elite).

His views differ fundamentally from the dreams and aspirations of the majority and most active section of the intelligentsia, which, in our opinion, reflect the true interests of all our people and progressive mankind. The leadership of our country should understand that as long as such a man (if I correctly understand the nature of his views) exercises influence, it is impossible to hope for a strengthening of the party's position among scientific and artistic intellectuals. An indication of this was given at the last elections in the Academy of Sciences when S.P. Trapeznikov was rejected by a substantial majority of votes, but this hint was not "understood" by the leadership.

The issue does not involve the professional or personal qualities of Trapeznikov, about which I know little. The issue involves his political views. I have based the foregoing on word-of-mouth evidence. Therefore, I cannot in principle exclude the possibility (although it is unlikely) that in reality everything is quite the opposite. In that pleasant event, I would beg forgiveness and retract what I have written.

The Cult of Maoism

In recent years, demagoguery, violence, cruelty and violence have seized a great country that had embarked on the path of socialist development. I refer, of course, to China. It is impossible without horror and pain to read about the mass contagion of antihumanism being spread by "the great helmsman" and his accomplices, about the Red Guards who, according to the Chinese radio, "jumped with joy" during public executions of "ideological enemies" of Chairman Mao.

The idiosyncrasy of the cult of personality has assumed in China monstrous, grotesquely tragicomic forms, carrying to the point of absurdity many of the traits of Stalinism and Hitlerism. But this absurdity has proved effective in making fools of tens of millions of people and in destroying and humiliating millions of more honest and more intelligent people.

The full picture of the tragedy in China is unclear. But in any case, it is impossible to look at it in isolation from the internal economic difficulties of China after the collapse of the adventure of "the great leap forward," in isolation from the struggle by various groups for power, or in isolation from the foreign political situation—the war in Vietnam, the estrangement in the world and the inadequate and lagging struggle against Stalinism in the Soviet Union.

The greatest damage from Maoism is often seen in the split of the world Communist movement. That is, of course, not so. The split is the result of a disease and to some extent represents the way to treat that disease. In the presence of the disease a formal unity would have been a dangerous, unprincipled compromise that would have led the world Communist movement into a blind alley once and for all.

Actually the crimes of the Maoists

against human rights have gone much too far, and the Chinese people are now in much greater need of help from the world's democratic forces to defend their rights than in need of the unity of the world's Communist forces, in the Maoist sense, for the purpose of combating the so-called imperialist peril somewhere in Africa or in Latin America or in the Middle East.

The Threat to Intellectual Freedom

This is a threat to the independence and worth of the human personality, a threat to the meaning of human life.

Nothing threatens freedom of the personality and the meaning of life like war, poverty, terror. But there are also indirect and only slightly more remote dangers.

One of these is the stupefaction of man (the "gray mass"), to use the cynical term of bourgeois prognosticators) by mass culture with its intentional or commercially motivated lowering of intellectual level and content, with its stress on entertainment or utilitarianism, and with its carefully protective censorship.

Another example is related to the question of education. A system of education under government control, separation of school and church, universal free education—all these are great achievements of social progress. But everything has a reverse side. In this case it is excessive standardization, extending to the teaching process itself, to the curriculum, especially in literature, history, civics, geography, and to the system of examinations.

One cannot but see a danger in excessive reference to authority and in the limitation of discussion and intellectual boldness at an age when personal convictions are beginning to be formed. In the old China, the system of examinations for official positions led to mental stagnation and to the canonizing of the reactionary aspects of Confucianism. It is highly undesirable to have anything like that in a modern society.

Modern technology and mass psychology constantly suggest new possibilities of managing the norms of behavior, the strivings and convictions of masses of people. This involves not only management through information based on the theory of advertising and mass psychology, but also more technical methods that are widely discussed in the press abroad. Examples are biochemical control of the birth rate, biochemical control of psychic processes and electronic control of such processes.

Warns on Experiments

It seems to me that we cannot completely ignore these new methods or prohibit the progress of science and technology, but we must be clearly aware of the awesome danger to basic human values and to the meaning of life that may be concealed in the misuse of technical and biochemical methods and the methods of mass psychology.

Man must not be turned into a chicken or a rat as in the well known experiments in which elation is induced electrically through electrodes inserted into the brain. Related to this is the question of the ever increasing use of tranquilizers and antidepressants, legal and illegal narcotics, and so forth.

We also must not forget the very real danger mentioned by Norbert Wiener in his book "Cybernetics," namely the absence in cybernetic machines of stable human norms of behavior. The tempting, unprecedented power that mankind, or even worse, a particular group in a divided mankind, may derive from the wise counsels of its future intellectual aides, the artificial "thinking" automata, may be, as Wiener warned, become a fatal trap; the counsels may turn out to be incredibly insidious and, instead of pursuing human objectives, may pursue completely abstract problems that had been transformed in an unforeseen manner in the artificial brain.

Such a danger will become quite real in a few decades if human values, particularly freedom of thought, will not be strengthened, if alienation will not be eliminated.

Let us now return to the dangers of today, to the need for intellectual freedom, which will enable the public at large and the intelligentsia to control and assess all acts, designs and decisions of the ruling group.

Marx and Lenin Quoted

Marx once wrote that the illusion that the "bosses know everything best" and "only the higher circles familiar with the official nature of things can pass judgment" was held by officials who equate the public well with governmental authority.

Both Marx and Lenin always stressed the viciousness of a bureaucratic system as the opposite of a democratic system. Lenin used to say that every cook should learn how to govern. Now the diversity and complexity of social phenomena and the dangers facing mankind have become immeasurably greater; and it is therefore all the more important that mankind be protected against the danger of dogmatic and voluntaristic errors, which are inevitable when decisions are reached in a closed circle of secret advisers or shadow cabinets.

It is no wonder that the problem of censorship (in the broadest sense of the word) has been one of the central issues in the ideological struggle of the last few years. Here is what a progressive American sociologist, Lewis A. Coser, has to say on this point:

"It would be absurd to attribute the alienation of many avant-garde authors solely to the battle with the censors; yet one may well maintain that those battles contributed in no mean measure to such alienation. To these authors, the censor came to be the very symbol of the Philistinism, hypocrisy and meanness of bourgeois society.

"Many an author who was initially apolitical was drawn to the political left in the United States because the left was in the forefront of the battle against censorship. The close alliance of avant-garde art with avant-garde political and social radicalism can be accounted for, at least in part, by the fact that they came to be merged in the mind of many as a single battle for freedom against all repression" (I quote from an article by Igor Kon, published in *Novy Mir* in January, 1968).

We are all familiar with the passion-

ate and closely argued appeal against censorship by the outstanding Soviet writer A. Solzhenitsyn. He as well as G. Vladimov, G. Svirskey and other writers who have spoken out on the subject have clearly shown how incompetent censorship destroys the living soul of Soviet literature; but the same applies, of course, to all other manifestations of social thought, causing stagnation and dullness and preventing fresh and deep ideas.

Such ideas, after all, can arise only in discussion, in the face of objections, only if there is a potential possibility of expressing not only true, but also dubious ideas. This was clear to the philosophers of ancient Greece and hardly anyone nowadays would have any doubts on that score. But after 50 years of complete domination over the minds of an entire nation, our leaders seem to fear even allusions to such a discussion.

At this point we must touch on some disgraceful tendencies that have become evident in the last few years. We will cite only a few isolated examples without trying to create a whole picture. The crippling censorship of Soviet artistic and political literature has again been intensified. Dozens of brilliant writings cannot see the light of day. They include some of the best of Solzhenitsyn's works, executed with great artistic and moral force and containing profound artistic and philosophical generalizations. Is this not a disgrace?

Wide indignation has been aroused by the recent decree adopted by the Supreme Soviet of the Russian Republic, amending the Criminal Code in direct contravention of the civil rights proclaimed by our Constitution. [The decree included literary protests among acts punishable under Article 190, which deals with failure to report crimes.]

Literary Trials Assailed

The Daniel-Sinyavsky trial, which has been condemned by the progressive public in the Soviet Union and abroad (from Louis Aragon to Graham Greene) and has compromised the Communist system, has still not been reviewed. The two writers languish in a camp with a strict regime and are being subjected (especially Daniel) to harsh humiliations and ordeals.

Most political prisoners are now kept in a group of camps in the Mordvinian Republic, where the total number of prisoners, including criminals, is about 50,000. According to available information, the regime has become increasingly severe in these camps, with personnel left over from Stalinist times playing an increasing role. It should be said, in all fairness, that a certain improvement has been noted very recently; it is to be hoped that this turn of events will continue.

The restoration of Leninist principles of public control over places of imprisonment would undoubtedly be a healthy development. Equally important would be a complete amnesty of political prisoners, and not just the recent limited amnesty, which was proclaimed on the 50th anniversary of the October Revolution as a result of a temporary victory of rightist tendencies in our leadership. There should also be a review of all political trials that are still raising doubts among the progressive public.

Was it not disgraceful to allow the arrest, 12-month detention without trial and then the conviction and sentencing to terms of five to seven years of Ginzburg, Galanskov and others for activities that actually amounted to a defense of civil liberties and (party, as an example) of Daniel and Sinyavsky personally. The author of these lines sent an appeal to the party's Central Committee on Feb. 11, 1967, asking that the Ginzburg-Galanskov case be closed. He received no reply and no explanations on the substance of the case. It was only later that he heard that there had been an attempt (apparently inspired by Semichastny, the former chairman of the K.G.B.) to slander the present writer and several other persons on the basis of inspired false testimony by one of the accused in the Galanskov-Ginzburg case. Subsequently the testimony of that person—Dobrovolsky—was used at the trial as evidence to show that Ginzburg and Galanskov had ties with a foreign anti-Soviet organization, which one cannot help but doubt.

[The reference here is to evidence given by Dobrovolsky in the pretrial investigation of the case of Vladimir Bukovsky, Vadim Delone and Yevgeny Kushev in early 1967. Dobrovolsky said there allegedly existed "a single anti-Communist front ranging from Academicians Sakharov and Leontovich to SMOG," an illegal group of young writers and artists.]

Persecution Is Charged

Was it not disgraceful to permit the conviction and sentencing (to three years in camps) of Khaustov and Bukovsky for participation in a meeting in defense of their comrades? Was it not disgraceful to allow persecution, in the best witchhunt tradition, of dozens of members of the Soviet intelligentsia who spoke out against the arbitrariness of judicial and psychiatric agencies, to attempt to force honorable people to sign false, hypocritical "retractions," to dismiss and blacklist people, to deprive young writers, editors and other members of the intelligentsia of all means of existence?

Here is a typical example of this kind of activity.

Comrade B., a woman editor of books on motion pictures, was summoned to the party's district committee. The first question was, Who gave you the letter in defense of Ginzburg to sign? Allow me not to reply to that question, she answered. All right, you can go, we want to talk this over, she was told. The decision was to expel the woman from the party and to recommend that she be dismissed from her job and barred from working anywhere else in the field of culture.

With such methods of persuasion and indoctrination the party can hardly expect to claim the role of spiritual leader of mankind.

Was it not disgraceful to have the speech at the Moscow party conference by the president of the Academy of Sciences [Mstislav V. Keldysh], who is

evidently either too intimidated or too dogmatic in his views? Is it not disgraceful to allow another backsliding into anti-Semitism in our appointments policy (incidentally, in the highest bureaucratic elite of our government, the spirit of anti-Semitism was never fully dispelled after the nineteen thirties).

Was it not disgraceful to continue to restrict the civil rights of the Crimean Tatars, who lost about 46 per cent of their numbers (mainly children and old people) in the Stalinist repressions? Nationality problems will continue to be a reason for unrest and dissatisfaction unless all departures from Leninist principles are acknowledged and analyzed and firm steps are taken to correct mistakes.

Is it not highly disgraceful and dangerous to make increasingly frequent attempts, either directly or indirectly (through silence), to publicly rehabilitate Stalin, his associates and his policy, his pseudosocialism of terrorist bureaucracy, a socialism of hypocrisy and ostentatious growth that was at best a quantitative and one-sided growth involving the loss of many qualitative features? (This is a reference to the basic tendencies and consequences of Stalin's policy, or Stalinism, rather than a comprehensive assessment of the entire diversified situation in a huge country with 200 million people.)

Although all these disgraceful phenomena are still far from the monstrous scale of the crimes of Stalinism and rather resemble in scope the sadly famous McCarthyism of the cold war era, the Soviet public cannot but be highly disturbed and indignant and display vigilance even in the face of insignificant manifestations of neo-Stalinism in our country.

Effect on Other Parties

We are convinced that the world's Communists will also view negatively any attempts to revive Stalinism in our country, which would, after all, be an awful blow to the attractive force of Communist ideas throughout the world.

Today the key to a progressive restructuring of the system of government in the interests of mankind lies in intellectual freedom. This has been understood, in particular, by the Czechoslovaks and there can be no doubt that we should support their bold initiative, which is so valuable for the future of socialism and all mankind. That support should be political and, in the early stages, include increased economic aid.

The situation involving censorship (Glavlit) in our country is such that it can hardly be corrected for any length of time simply by "liberalized" directives. Major organizational and legislative measures are required, for example, adoption of a special law on press and information that would clearly and convincingly define what can and what cannot be printed and would place the responsibility on competent people who would be under public control. It is essential that the exchange of information on an international scale (press, tourism and so forth) be expanded in every way, that we get to know ourselves better, that we not try to save on sociological, political and economic research and surveys, which should be conducted not only according to government-controlled programs (otherwise we might be tempted to avoid "unpleasant" subjects and questions).

THE BASIS FOR HOPE

The prospects of socialism now depend on whether socialism can be made attractive, whether the moral attractiveness of the ideas of socialism and the glorification of labor, compared with the egotistical ideas of private ownership and the glorification of capital, will be the decisive factors that people will bear in mind when comparing socialism and capitalism, or whether people will remember mainly the limitations of intellectual freedom under socialism or, even worse, the fascist regime of the cult [of personality].

I am placing the accent on the moral aspect because, when it comes to achieving a high productivity of social labor or developing all productive forces or insuring a high standard of living for most of the population, capitalism and socialism seem to have "played to a tie." Let us examine this question in detail.

The U.S.-Soviet Ski Race

Imagine two skiers racing through deep snow. At the start of the race, one of them, in striped jacket, was many kilometers ahead, but now the skier in the red jacket is catching up to the leader. What can we say about their relative strength? Not very much, since each skier is racing under different conditions. The striped one broke the snow, and the red one did not have to. (The reader will understand that this ski race symbolizes the burden of research and development costs that the country leading in technology has to bear.) All one can say about the race is that there is not much difference in strength between the two skiers.

The parable does not, of course, reflect the whole complexity of comparing economic and technological progress in the United States and the Soviet Union, the relative vitality of RRS and AME (Russian Revolutionary Sweep and American Efficiency).

We cannot forget that during much of the period in question the Soviet Union waged a hard war and then healed its wounds; we cannot forget that some absurdities in our development were not an inherent aspect of the socialist course of development, but a tragic accident, a serious, though not inevitable, disease.

On the other hand, any comparison must take account of the fact that we are now catching up with the United States only in some of the old, traditional industries, which are no longer as important as they used to be for the United States (for example, coal and steel). In some of the newer fields, for example, automation, computers, petrochemicals and especially in industrial research and development, we are not only lagging behind but are also growing more slowly, so that a complete victory of our economy in the next few decades is unlikely.

It must also be borne in mind that our nation is endowed with vast natural

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Basis for Hope Seen in Rapprochement Between Socialist and Capitalist Systems

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resources, from fertile black earth to coal and forest, from oil to manganese and diamonds. It must be borne in mind that during the period under review our people worked to the limit of its capacity, which resulted in a certain depletion of resources.

We must also bear in mind the ski-track effect, in which the Soviet Union adopted principles of industrial organization and technological development previously tested in the United States. Examples are the method of calculating the national fuel budget, assembly-line techniques, antibiotics, nuclear power, oxygen converters in steel-making, hybrid corn, self-propelled harvester combines, strip mining of coal, rotary excavators, semiconductors in electronics, the shift from steam to diesel locomotives, and much more.

There is only one justifiable conclusion and it can be formulated cautiously as follows:

1. We have demonstrated the vitality of the socialist course, which has done a great deal for the people materially, culturally and socially and, like no other system, has glorified the moral significance of labor.

2. There are no grounds for asserting, as is often done in the dogmatic vein, that the capitalist mode of production leads the economy into a blind alley or that it is obviously inferior to the socialist mode in labor productivity, and there are certainly no grounds for asserting that capitalism always leads to absolute impoverishment of the working class.

Progress by Capitalism

The continuing economic progress being achieved under capitalism should be a fact of great theoretical significance for any nondogmatic Marxist. It is precisely this fact that lies at the basis of peaceful coexistence and it suggests, in principle, that if capitalism ever runs into an economic blind alley it will not necessarily have to leap into a desperate military adventure. Both capitalism and socialism are capable of long-term development, borrowing positive elements from each other and actually coming closer to each other in a number of essential aspects.

I can just hear the outcries about revisionism and blunting of the class approach to this issue; I can just see the smirks about political naiveté and immaturity. But the facts suggest that these are real economic progress in the United States and other capitalist countries, that the capitalists are actually using the social principles of socialism, and that there has been real improvement of the position of the working people. More important, the facts suggest that on any other course except ever-increasing coexistence and collaboration between the two systems and the two superpowers, with a smoothing of contradictions and with mutual assistance, on any other course annihilation awaits mankind. There is no other way out.

Two Systems Compared

We will now compare the distribution of personal income and consumption for various social groups in the United States and the Soviet Union. Our propaganda materials usually assert that there is crying inequality in the United States, while the Soviet Union has something entirely just, entirely in the interests of the working people. Actually both statements contain half-truths and a fair amount of hypocritical evasion.

I have no intention of minimizing the tragic aspects of the poverty, lack of rights and humiliation of the 22 million American Negroes. But we must clearly understand that this problem is not primarily a class problem, but a racial problem, involving the racism and egotism of white workers, and that the ruling group in the United States is interested in solving this problem. To be sure the government has not been as active as it should be; this may be related to fears of an electoral charac-

ter and to fears of upsetting the unstable equilibrium in the country and thus activate extreme leftist and especially extreme rightist parties. It seems to me that we in the socialist camp should be interested in letting the ruling group in the United States settle the Negro problem without aggravating the situation in the country.

At the other extreme, the presence of millionaires in the United States is not a serious economic burden in view of their small number. The total consumption of the rich is less than 20 per cent, that is, less than the total rise of national consumption over a five-year period. From this point of view, a revolution, which would be likely to halt economic progress for more than five years, does not appear to be an economically advantageous move for the working people. And I am not even talking of the blood-letting that is inevitable in a revolution. And I am not talking of the danger of the "irony of history," about which Friedrich Engels wrote so well in his famous letter to V. Zasulich, the "irony" that took the form of Stalinism in our country.

There are, of course, situations where revolution is the only way out. This applies especially to national uprisings. But that is not the case in the United States and other developed capitalist countries, as suggested, incidentally, in the programs of the Communist parties of these countries.

As far as our country is concerned, here, too, we should avoid painting an idyllic picture. There is still great inequality in wealth between the city and the countryside, especially in rural areas that lack a transport outlet to the private market or do not produce any goods in demand in private trade. There are great differences between cities with some of the new, privileged industries and those with older, antiquated industries. As a result 40 per cent of the Soviet population is in difficult economic circumstances. In the United States about 25 per cent of the population is on the verge of poverty. On the other hand the 5 per cent of the Soviet population that belong to the managerial group is as privileged as its counterpart in the United States.

The Managerial Group

The development of modern society in both the Soviet Union and the United States is now following the same course of increasing complexity of structure and of industrial management, giving rise in both countries to managerial groups that are similar in social character.

We must therefore acknowledge that there is no qualitative difference in the structure of society of the two countries in terms of distribution of consumption. Unfortunately the effectiveness of the managerial group in the Soviet Union (and, to a lesser extent, in the United States) is measured not only in purely economic or productive terms. This group also performs a concealed protective function that is rewarded in the sphere of consumption by concealed privileges.

Few people are aware of the practice under Stalin of paying salaries in sealed envelopes, of the constantly recurring concealed distribution of scarce foods and goods for various services, privileges in vacation resorts, and so forth.

I want to emphasize that I am not opposed to the socialist principle of payment based on the amount and quality of labor. Relatively higher wages for better administrators, for highly skilled workers, teachers and physicians, for workers in dangerous or harmful occupations, for workers in science, culture and the arts, all of whom account for a relatively small part of the total wage bill, do not threaten society if they are not accompanied by concealed privileges; moreover, higher wages benefit society if they are deserved.

The point is that every wasted minute of a leading administrator represents a major material loss for the economy and every wasted minute of a leading figure in the arts means a loss in the emotional, philosophical and artistic

wealth of society. But when something is done in secret, the suspicion inevitably arises that things are not clean, that loyal servants of the existing system are being bribed.

It seems to me that the rational way of solving this touchy problem would be not the setting of income ceilings for party members or some such measure, but simply the prohibition of all privileges and the establishment of unified wage rates based on the social value of labor and an economic market approach to the wage problem.

I consider that further advances in our economic reform and a greater role for economic and market factors accompanied by increased public control over the managerial group (which, incidentally, is also essential in capitalist countries) will help eliminate all the roughness in our present distribution pattern.

An even more important aspect of the economic reform for the regulation and stimulation of production is the establishment of a correct system of market prices, proper allocation and rapid utilization of investment funds and proper use of natural and human resources based on appropriate rents in the interest of our society.

A number of socialist countries, including the Soviet Union, Yugoslavia and Czechoslovakia are now experimenting with basic economic problems of the role of planning and of the market, government and cooperative ownership, and so forth. These experiments are of great significance.

Rapprochement Advocated

Summing up, we now come to our basic conclusion about the moral and ethical character of the advantages of the socialist course of development of human society. In our view, this does not in any way minimize the significance of socialism. Without socialism, bourgeois practicalism and the egotistical principle of private ownership gave rise to the "people of the abyss" described by Jack London and earlier by Engels.

Only the competition with socialism and the pressure of the working class made possible the social progress of the 20th century and, all the more, will insure the now inevitable process of rapprochement of the two systems. It took socialism to raise the meaning of labor to the heights of a moral feat. Before the advent of socialism, national egotism gave rise to colonial oppression, nationalism and racism. By now it has become clear that victory is on the side of the humanistic, international approach.

The capitalist world could not help giving birth to the socialist, but now the socialist world should not seek to destroy by force the ground from which it grew. Under the present conditions this would be tantamount to suicide of mankind. Socialism should ennoble that ground by its example and other indirect forms of pressure and then merge with it.

The rapprochement with the capitalist world should not be an unprincipled, antipopular plot between ruling groups, as happened in the extreme case [of the Soviet-Nazi rapprochement] of 1939-40. Such a rapprochement must rest not only on a socialist, but on a popular, democratic foundation, under the control of public opinion, as expressed through publicity, elections and so forth.

Such a rapprochement implies not only wide social reforms in the capitalist countries, but also substantial changes in the structure of ownership, with a greater role played by government and cooperative ownership, and the preservation of the basic present features of ownership of the means of production in the socialist countries.

Our allies along this road are not only the working class and the progressive intelligentsia, which are interested in peaceful coexistence and social progress and in a democratic, peaceful transition to socialism (as reflected in the programs of the Communist parties of the developed countries), but also the reformist part of the bourgeoisie, which supports such a program of "convergence." (Although I am using this

term, taken from the Western literature, it is clear from the foregoing that I have given it a socialist and democratic meaning.)

Typical representatives of the reformist bourgeoisie are Cyrus Eaton, President Franklin D. Roosevelt and, especially, President John F. Kennedy. Without wishing to cast a stone in the direction of Comrade N. S. Khrushchev (our high esteem of his services was expressed earlier), I cannot help recalling one of his statements, which may have been more typical of his entourage than of him personally.

On July 10, 1961, in speaking at a reception of specialists about his meeting with Kennedy in Vienna, Comrade Khrushchev recalled Kennedy's request that the Soviet Union, in conducting policy and making demands, consider the actual possibilities and the difficulties of the new Kennedy Administration and refrain from demanding more than it could grant without courting the danger of being defeated in elections and being replaced by rightist forces. At that time, Khrushchev did not give Kennedy's unprecedented request the proper attention, to put it mildly, and began to rail. And now, after the shots in Dallas, who can say what auspicious opportunities in world history have been, if not destroyed, but, at any rate, set back because of a lack of understanding.

Bertrand Russell once told a peace congress in Moscow that "the world will be saved from thermonuclear annihilation if the leaders of each of the two systems prefer complete victory of the other system to a thermonuclear war" (I am quoting from memory). It seems to me that such a solution would be acceptable to the majority of people in any country, whether capitalist or socialist. I consider that the leaders of the capitalist and socialist systems by the very nature of things will gradually be forced to adopt the point of view of the majority of mankind.

Intellectual freedom of society will facilitate and smooth the way for this trend toward patience, flexibility and a security from dogmatism, fear and adventurism. All mankind, including its best organized and active forces, the working class and the intelligentsia, is interested in freedom and security.

Four-Stage Plan for Cooperation

Having examined in the first part of this essay the development of mankind according to the worse alternative, leading to annihilation, we must now attempt, even schematically, to suggest the better alternative. (The author concedes the primitiveness of his attempts at prognostication, which requires the joint efforts of many specialists, and here, even more than elsewhere, invites positive criticism.)

[1]

In the first stage, a growing ideological struggle in the socialist countries between Stalinist and Maoist forces, on the one hand, and the realistic forces of leftist Leninist Communists (and leftist Westerners), on the other, will lead to a deep ideological split on an international, national and intraparty scale.

In the Soviet Union and other socialist countries, this process will lead first to a multiparty system (here and there) and to acute ideological struggle and discussions, and then to the ideological victory of the realists, affirming the policy of increasing peaceful coexistence, strengthening democracy and expanding economic reforms (1960-80). The dates reflect the most optimistic unrolling of events.

The author, incidentally, is not one of those who consider the multiparty system to be an essential stage in the development of the socialist system or, even less, a panacea for all ills, but he assumes that in some cases a multiparty system may be an inevitable consequence of the course of events when a

ruling Communist party refuses for one reason or another to rule by the scientific democratic method required by history.

[2]

In the second stage, persistent demands for social progress and peaceful coexistence in the United States and other capitalist countries, and pressure exerted by the example of the socialist countries and by internal progressive forces (the working class and the intelligentsia) will lead to the victory of the leftist reformist wing of the bourgeoisie, which will begin to implement a program of rapprochement (convergence) with socialism, i.e. social progress, peaceful coexistence and collaboration with socialism on a world scale and changes in the structure of ownership. This phase includes an expanded role for the intelligentsia and an attack on the forces of racism and militarism (1972-85). (The various stages overlap.)

[3]

In the third stage, the Soviet Union and the United States, having overcome their alienation, solve the problem of saving the poorer half of the world. The above-mentioned 20 per cent tax on the national income of developed countries is applied. Gigantic fertilizer factories and irrigations systems using atomic power will be built, the resources of the sea will be used to a vastly greater extent, indigenous personnel will be trained, and industrialization will be carried out. Gigantic factories will produce synthetic amino acids, and synthesize proteins, fats and carbohydrates. At the same time disarmament will proceed (1972-90).

[4]

In the fourth stage, the socialist convergence will reduce differences in social structure, promote intellectual freedom, science and economic progress and lead to creation of a world government and the smoothing of national contradictions (1980-2000). During this period decisive progress can be expected in the field of nuclear power, both on the basis of uranium and thorium and, probably, deuterium and lithium.

Some authors consider it likely that explosive breeding (the reproduction of fertile materials such as plutonium, uranium 233 and tritium) may be used in subterranean or other enclosed explosions.

During this period the expansion of space exploration will require thousands of people to work and live continuously on other planets and on the moon, on artificial satellites and on asteroids whose orbits will have been changed by nuclear explosions.

The synthesis of materials that are superconductors at room temperature may completely revolutionize electrical technology, cybernetics, transportation and communications. Progress in biology (in this and subsequent periods) will make possible effective control and direction of all life processes at the levels of the cell, organism, ecology and society, from fertility and aging to psychic processes and heredity.

If such an all-encompassing scientific and technological revolution, promising uncounted benefits for mankind, is to be possible and safe, it will require the greatest possible scientific foresight and care and concern for human values of a moral, ethical and personal character. (I touched briefly on the danger of a thoughtless bureaucratic use of the scientific and technological revolution in a divided world in the section on "Dangers," but could add a great deal more.) Such a revolution will be possible and safe only under highly intelligent worldwide guidance.

The foregoing program presumes:

(a) worldwide interest in overcoming the present divisions;

(b) the expectation that modifications in both the socialist and capitalist countries will tend to reduce contradictions and differences;

(c) worldwide interest of the intelligentsia, the working class and other progressive forces in a scientific demo-

cratic approach to politics, economics and culture;

(d) the absence of unsurmountable obstacles to economic development in both world economic systems that might otherwise lead inevitably to a blind alley, despair and adventurism.

Every honorable and thinking person who has not been poisoned by narrow-minded indifference will seek to insure that future development will be along the lines of the better alternative. However only broad, open discussion, without the pressure of fear and prejudice, will help the majority to adopt the correct and best course of action.

Proposals Summarized

In conclusion, I will sum up some of the concrete proposals of varying degrees of importance that have been discussed in the text. These proposals, addressed to the leadership of the country, do not exhaust the content of the article.

[1]

The strategy of peaceful coexistence and collaboration must be deepened in every way. Scientific methods and principles of international policy will have to be worked out, based on scientific prediction of the immediate and more distant consequences.

[2]

The initiative must be seized in working out a broad program of struggle against hunger.

[3]

A law on press and information must be drafted, widely discussed and adopted, with the aim not only of ending irresponsible and irrational censorship, but of encouraging self-study in our society, fearless discussion and the search for truth. The law must provide for the material resources of freedom of thought.

[4]

All anticonstitutional laws and decrees violating human rights must be abrogated.

[5]

Political prisoners must be amnestied and some of the recent political trials must be reviewed (for example, the Daniel-Sinyavsky and Galanskov-Ginzburg cases). The camp regime of political prisoners must be promptly relaxed.

[6]

The exposure of Stalin must be carried through to the end, to the complete truth, and not just to the carefully weighed half-truth dictated by caste considerations. The influence of neo-Stalinists in our political life must be restricted in every way (the text mentioned, as an example, the case of S. Trapeznikov, who enjoys too much influence).

[7]

The economic reform must be deepened in every way and the area of experimentation expanded, with conclusions based on the results.

[8]

A law on geohygiene must be adopted after broad discussion, and ultimately become part of world efforts in this area.

With this article the author addresses the leadership of our country and all its citizens as well as all people of goodwill throughout the world. The author is aware of the controversial character of many of his statements. His purpose is open, frank discussion under conditions of publicity.

In conclusion a textological comment. In the process of discussion of previous drafts of this article, some incomplete and in some respects one-sided texts have been circulated. Some of them contained certain passages that were inept in form and tact and were included through oversight. The author asks readers to bear this in mind. The author is deeply grateful to readers of preliminary drafts who communicated their friendly comments and thus helped improve the article and refine a number of basic statements.

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