

ACADEMY OF SCIENCES
OF THE U.S.S.R.
ACADEMY OF MEDICAL SCIENCES
OF THE U.S.S.R.

SCIENTIFIC SESSION
on the
PHYSIOLOGICAL
TEACHINGS
of
ACADEMICIAN
I.P. PAVLOV

June 28 - July 4
1950

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INAUGURAL ADDRESS
REPORTS
RESOLUTION



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Comrade J. V. Stalin

Dear Joseph Vissarionovich,

We, at this session of the Academy of Sciences of the U.S.S.R. and the Academy of Medical Sciences of the U.S.S.R. on the physiological teachings of I. P. Pavlov, desire to convey to you our ardent greetings, as a pre-eminent scientist and the genius who is the leader and teacher of the heroic Bolshevik Party, the Soviet people and all progressive humanity, as the standard-bearer of peace, democracy and Socialism and the champion of the welfare and happiness of the working people of the world.

This scientific session will go down in the history of progressive science as marking a new epoch in the development of physiology and medicine, whose mission it is in our country to conserve and fortify the health of the working people and to assist the building of Communism.

It is with deep pleasure that we all observe that this session is taking place at a time of an unprecedented general advance of science in the U.S.S.R., due to the steadily growing might of our Country, to the continuous improvement of the conditions of life of the Soviet people, and to your indefatigable and titanic activities.

Thanks to the constant care and solicitude of the Bolshevik Party, the Soviet Government and of you personally, Comrade Stalin, science in the U.S.S.R. is rapidly developing and is being continually enriched by new discoveries and achievements.

Carrying on the great work of Lenin, you, Comrade Stalin, inform science with Bolshevik spirit and purpose and render immense support to all that is advanced and progressive in science.

The great Lenin and you, dear Comrade Stálin, rendered I. P. Pavlov inestimable assistance in his work and provided all the necessary conditions for the creative development of his physiological teachings.

You, as a pre-eminent scientist, produce works which are without equal in the history of progressive science. Your work *Concerning Marxism in Linguistics* is a model of genuine creative science, a supreme example of how science should be developed and advanced. It has created a revolution in linguistics, it has ushered in a new era in Soviet science generally.

You, Comrade Stalin, pose and creatively solve most vital problems of Marxist-Leninist theory. The powerful light of your genius illumines the road to Communism.

We, like all Soviet people, are proud and infinitely happy that world progress and advanced science are headed by you, dear Joseph Vissarionovich.

This Pavlov Session, the keynote of which is criticism and self-criticism, has disclosed serious errors and shortcomings in the elaboration of Pavlov's scientific legacy. At the same time, it has outlined a grand program for the all-round creative advancement of Pavlov's teachings.

You, Comrade Stalin, constantly admonish us not to rest content with results achieved. Following your great example and your behests, we are fully aware that I. P. Pavlov's teaching is not a petrified doctrine, that it provides a scientific basis for the creative development of physiology, medicine and psychology, of rational dietetics, physical culture and spa therapy making for the improvement of the physical well-being of the Soviet citizen.

The Soviet people, and progressive humanity generally, will not forgive us if we do not put the treasures Pavlov has bequeathed us to full and proper use.

We promise you, dear Comrade Stalin, to bend all our efforts to eliminate as speedily as possible the shortcomings in the work of developing Pavlov's science, and to put it to the utmost use in furtherance of the building of Communism in our country.

Long live our beloved teacher and leader, the glory of labouring humanity, the pride and banner of progressive science—our great Stalin!

Adopted at the Session of the Academy of Sciences of the U.S.S.R. and the Academy of Medical Sciences of the U.S.S.R. on Pavlov's Physiological Teachings.

July 4, 1950

INAUGURAL ADDRESS

BY S. I. VAVILOV

PRESIDENT OF THE ACADEMY
OF SCIENCES OF THE U.S.S.R.

Comrades, last September the 100th anniversary of the birth of Ivan Petrovich Pavlov was celebrated with unusual fervour everywhere—from scientific institutions to collective farms—throughout the length and breadth of our land. The extraordinary scope of the homage paid to the memory of a scientist was undoubtedly due to the quite exceptional importance of Pavlov's teachings not only for physiology, not only for science, but for Soviet culture and life generally.

Today, nearly a year later, Pavlov's teachings have again brought us together, but not this time for anniversary celebrations, not for historical surveys and reminiscences, but for a critical and self-critical examination of how matters stand with regard to the development of Pavlov's legacy in the Soviet Union.

Pavlov's teachings are not only of immense value, they are not only a grand achievement and a supreme acquisition of science. Pavlov opened up extensive vistas for new advances in physiology and psychology, for biology and natural science in general. He discovered a highroad in science of great importance in regard both to method and results. He erected an extremely strong buttress of the materialist outlook in a question of cardinal importance. Of this question—the relation between the material and the mental, or ideal—Comrade Stalin had written in 1906 as follows:

"A single and indivisible nature expressed in two different forms—material and ideal; a single and indivisible social life expressed in two different forms—material and ideal—this is how we should regard the development of nature and of social life. . . . The development of the ideal side, the development of consciousness, is *preceded* by the development of the material side, the development of the external conditions: first the external conditions change, the material side changes, and *then* consciousness, the ideal side, changes accordingly."¹

In these precepts of J. V. Stalin we find foreshadowed in very general outline the main thesis of Pavlov's theory of the higher nervous activity, in all its richness and complexity.

It was as though in echo of Comrade Stalin's thesis that many years later, in 1930, and after immense experimental work, I. P. Pavlov, in his "A Physiologist's Reply to Psychologists," summed up the main conclusion of his researches: "Man is, of course, a system (more crudely, a machine), and like every other in nature it is governed by the inevitable laws common to all nature; but it is a system which, within the present field of our scientific vision, is unique for its extreme power of self-regulation. . . . The chiefest, strongest and most permanent impression we get from the study of higher nervous activity by our methods is the extraordinary plasticity of this activity, and its immense potentialities; nothing is immobile or intractable, and everything may always be achieved, changed for the better, provided only that the proper conditions are created.

"A system (machine) and man, with all his ideals, aspirations and achievements—how terribly discordant a comparison it would seem at a first glance! But is this really so? Even from the generally accepted point of view, is not man the pinnacle of nature, the highest embodiment of the

¹ J. Stalin, *Anarchism or Socialism*, Eng. ed., Moscow 1951, pp. 32-33.

resources of infinite nature, the incarnation of her mighty and still unexplored laws? Is this not rather calculated to enhance man's dignity, to afford him the deepest satisfaction? And everything vital is retained that is implied in the idea of free will, with its personal, social and governmental responsibility...."¹

This conclusion, formulated by Pavlov six years before his death, is, nevertheless, by no means the ultimate limit, the last word. Actually, it sets an immense program before physiological science. Pavlov opened a new and highly important road in science, and mapped it for a long way ahead. This is the immortal service he rendered his socialist country and all progressive mankind.

It is the duty of Pavlov's heirs, his pupils, collaborators and successors, to develop to the best of their ability the achievements of the genius of their teacher. This is essential if science is to proceed properly; it is particularly essential for the science of a socialist state. We have learned and are accustomed to plan research. We may not be in a position to foresee the creative achievements of a Mendeleyev or a Pavlov, but from the summits of the work they have accomplished we may discern expansive vistas enabling us to plan science rationally. It is our duty to follow the Pavlov path, that most important and unmistakable path he has blazed and traced for us. It opens up new and quite distinct prospects of enormous significance for theory and practice.

In Pavlov's lifetime the Soviet Government created unprecedented conditions for the advancement of his work. On Lenin's initiative the Council of People's Commissars set up a special committee to provide him with the conditions he needed, and a government decree was issued to this effect. The government founded two research institutes for his benefit—the Physiological Institute of the Academy of Sciences in Leningrad, and the biological station in Koltushi,

¹ I. P. Pavlov, *Complete Works*, Vol. III, p. 454. (Unless otherwise stated, all references are to Russian editions.—Ed.)

which Pavlov called "the capital of the conditioned reflexes." "I should like to live for years and years," Pavlov wrote in 1935, "because my laboratories are flourishing as never before. The Soviet Government has donated millions for my scientific work, for the building of laboratories. I am moved to believe that the measures for the encouragement of physiologists—and I, after all, am a physiologist—will accomplish their purpose, and that my science will particularly flourish on our native soil. . . ."¹

Fifteen years have elapsed since these lines were written. Pavlov is no longer with us. The immense assistance accorded by the Party and Government, and by Comrade Stalin personally, to the development of physiology in our country has since continued on an ever greater scale. In addition to the institutes I have mentioned, physiological institutions have been founded in Moscow, Leningrad and other cities, and we now have an Academy of Medical Sciences, whose theoretical work is principally based on physiological research. Physiological work in the Soviet Union has today assumed enormous scope.

But can we say that the progress of Soviet physiology since Pavlov's death has been commensurate with the paramount significance of the legacy he has bequeathed us? Beyond question, the scientific output of Soviet physiologists in this period has been very large. The extensive Soviet literature, the books and journals devoted to physiology published in the past fourteen years, bear witness to this. Nor can it be denied that much of this work has been very important and significant. But have Pavlov's pupils followed the road—that highly productive and fertile road, as I have said—which Pavlov marked out? As far as a nonphysiologist can judge, the work of the Soviet physiologists concentrated in the bigger scientific institutions has deviated considerably from Pavlov's teachings. There have been attempts—not too frequent, happily—at an erroneous and unwarranted revision

¹ I. P. Pavlov *Complete Works*, Vol. I, p. 31.

of Pavlov's views. But, more frequently, the ideas and work of researches have not kept to the highroad, but wandered into byways and fieldpaths. Strange and surprising though it may seem, the broad Pavlov road has become little frequented, comparatively few have followed it consistently and systematically. Not all our physiologists have been able, or have always been able, to measure up to Pavlov's straightforward materialism. They have sometimes preferred roundabout, but more conciliatory ways of their own.

That Pavlov's theory has always encountered open or concealed opposition in the bourgeois countries is quite understandable, the chief reason being that it is a theory which by its very nature is profoundly materialistic. When Ivan Petrovich was still alive, in 1933, almost in the same year that foreign physiologists officially conferred upon him the honourable title of "princeps physiologorum mundi," Sherrington, one of the oldest leaders of the English physiologists, wrote: "But, strictly, we have to regard the relation of mind to brain as still not merely unsolved but still devoid of a basis for its very beginning." This moved Pavlov to say in the intimate circle of his disciples: "He [Sherrington] says bluntly and quite distinctly that we have not even a basis, not even the slightest basis, for a solution of this problem. That can be the only explanation why this man has in his late years become a confirmed dualist and animist."¹ Sherrington was seconded by some of the American physiologists. Liddell, for instance, considers that Pavlov's theory of conditioned reflexes should be shelved, and that only his method, his technique of elaborating conditioned reflexes may be useful. Expressions of opinion of this nature have been quite numerous and are probably well known to you here at this session.

On the other hand, some new and highly important trends of work suggested by Pavlov, above all, his theory of the second signal system, have been very little developed by

¹ *The Pavlov Wednesdays*, Vol. II, p. 446.

us. I shall confine myself to only one, but very significant, example. As you know, in the past few weeks there has been a broad discussion in the columns of *Pravda* of materialist linguistics. Not one of the specialists who took part in the discussion even mentioned that Pavlov's theory opens up quite new paths for a study of language from the standpoint of natural science, as Ivan Petrovich himself pointed out in his time. No mention was made of this highly important problem because in fact practically nothing has been done in this direction.

Has anything been suggested in the science of physiology, and primarily in the theory of the higher nervous activity, of greater or, at least, of equivalent value to Pavlov's teachings? If there had been, it might have served as some justification for the temporary departure from Pavlov's line. But as far as nonphysiologists—myself, for instance—are aware, nothing has been, either here or abroad.

Comrades, we have only clearly to realize what a situation has arisen in physiology in our country as a result of such an attitude, and it will be quite obvious that the time has come to sound the alarm. The development of modern natural science since the time of Galileo has always owed its strength to its continuity. The scientific legacy bequeathed by predecessors served as a step, a springboard, to the next stage, and in the needed, the most effective direction, theoretically and practically. Our people, and progressive humanity generally, will not forgive us if we do not put the wealth of Pavlov's legacy to proper use. In its development lies the foundation for a deeper understanding of the most complex forms of life, and for new advances in medicine.

It is anxiety for the future that has induced the Academy of Sciences and the Academy of Medical Sciences of the U.S.S.R. to convene this session. We hope that after the introductory speeches and reports have been made you will take the floor and in a spirit of bold criticism and self-criticism express your opinion of the lines Soviet physiology

must follow for the further advancement of Pavlov's teachings.

The scientific public of the Soviet Union, the millions of Soviet intellectuals, were deeply stirred by the contribution recently made to the discussion of linguistics by our great leader and teacher, that master scientist and friend of science, Comrade Stalin. In this article, J. V. Stalin sounded the reminder: "It is generally recognized that no science can develop and flourish without a battle of opinions, without freedom of criticism." These words should be our guide. Comrades, I exhort you to make this session the occasion for a constructive battle of opinions, for free criticism, without regard for established authorities, undeterred by long-standing traditions, and irrespective of persons.

May our deliberations become a turning point in the development of Soviet physiology and help to remove the obstructions that are blocking its advancement. There can be no doubt that it is only by a return to Pavlov's road that physiology can be most effective, most beneficial to our people and most worthy of the Stalin epoch of the building of Communism.

Glory to Pavlov's genius!

Long live the leader of peoples, our great scientist and preceptor in all our major undertakings, Comrade Stalin!