

# Stalin's interventionism in Soviet physiology: the Pavlovian session

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## ABSTRACT

**Introduction.** The last years of the Stalinist government were marked by strong economic, cultural, and scientific interventionism. With these actions, Joseph Stalin (1878-1953) aimed to eradicate Western influence and place the natural sciences into an environment controlled by the Russian government. The aim of this review article is to describe Stalinist interventionism in Soviet physiology through what was called the Pavlovian session. We include the translation into Spanish of a letter by Stalin in which he provided the instructions for that session.

**Development.** The Pavlovian session on the physiological teachings of the academician I.P. Pavlov was held from 28 June to 4 July 1950. The session was organised by the Academy of Sciences and the Academy of Medical Sciences of the USSR, under the direct supervision of Stalin's Soviet government. One of the session's main organisers was Yuri Zhdanov (1919-2006). Rather than being a space for debating about science, the session served as a pulpit from which to accuse several of Pavlov's students of being anti-communists and holding revisionist attitudes towards the Pavlovian legacy. The main target was Leon Orbeli (1882-1958), leader of Soviet physiology and formerly Pavlov's favourite student.

**Conclusions.** The Pavlovian session reinforced Stalin's ideological control and represented a turning point in the history of Soviet physiology: it turned Pavlov's theories into a dogma and ostracised any other physiological school.

## KEYWORDS

Physiology, Lysenko, Orbeli, Pavlov, Stalin, Zhdanov

## Introduction

Joseph Stalin (1878-1953) (Figure 1), who died on 5 March 1953, was the Chairman of the Council of Ministers of the Soviet Union (1946-1953) and General Secretary of the Communist Party (1922-1952). For three decades, he inflexibly governed the Union of Soviet Socialist Republics, holding the legislative, executive, and judicial power. Under a totalitarian political and economic system, the State exerted absolute dominance over citizens, their lands, private property, and the means

of production. In this framework of autocratic power, Stalin believed that science should be at the service of the State, and designated himself the arbiter not only of political and economic questions, but also in cultural and scientific issues.<sup>1,2</sup>

In the late 1920s, Stalin decreed a progressive interventionism in the arts and sciences.<sup>3</sup> In 1928, all scientific publications came under the control of the Party and one year later, the Academy of Sciences, the most prestigious scientific institution in Russia, was

taken over, losing its institutional autonomy. The height of this process came in 1939, when the Academy of Sciences named Stalin an honorary member and stated that he was “the greatest thinker of our time and the coryphaeus of vanguard science.”<sup>4</sup>

The last years of the Stalinist government were marked by a strong interventionism in Soviet science. Its aims were to completely and unconditionally eradicate the influence of Western culture. In 1947, Stalin strongly criticised the textbook *History of Western European philosophy* by Georgy Aleksandrov (1908-1961). He considered that the text overemphasised the contributions of Western philosophers and underestimated those of Russian philosophy.<sup>5</sup> The following year, he organised the session of the Lenin Academy of Agricultural Sciences. In these sessions, Mendel’s laws of inheritance were replaced by the Michurinist doctrine.<sup>6</sup> The aim of the present work is to describe Stalinist interventionism in Soviet physiology, choosing the Pavlovian sessions held in 1950 as our focus. We include the translation into Spanish of the letter by Stalin in which he provided the instructions for that session.

## Development

### *Pavlov and the Michurinist doctrine*

Stalin searched for formulae that would enable him to transform and reshape reality according to the Soviet government.<sup>7</sup> In 1948, he designed the Great Plan for the Transformation of Nature, a huge, expensive undertaking of irrigation and forest belt projects to transform rural Russia into a fertile, flourishing garden. The session of the Lenin Academy of Agricultural Sciences, which was held that same year, represents the most paradigmatic example of this transformation plan. With the acquiescence of the Central Committee of the Communist Party, this session consecrated the Michurinist doctrine, condemned Darwin’s “mistakes,” and accused Mendel of being a reactionary.

Ivan Michurin (1855-1935) postulated that the active factor of evolutionary change does not reside in the body, but in the controllable conditions of the environment. The Michurinist doctrine, in line with Lamarck’s theory

<sup>4</sup>Jean-Baptiste Lamarck (1744-1829) suggested that the adaptation of organisms to the environment takes place through a specific mechanism of adjustment: the inheritance of acquired characteristics.



Figure 1. Joseph Stalin (1878-1953).

of evolution,<sup>8</sup> proclaims the union of the body with the environment, so that the body is not a separate entity from the particular configuration of the environmental conditions that support it. In other words, the organism and its environment constitute an adaptive system in which the forces of change reside exclusively in the environment.

The postulates of transformism and mechanical causality inevitably gained acceptance in the areas of Soviet thought related with human behaviour. In the years following the Second World War, the Soviet population was immersed in a deep passivity and was unable to meet the objectives established by the Stalinist government. The root of the problem, according to Tucker,<sup>8</sup> was not the inability of the Russian people to endure further deprivations, but the meaninglessness of the sacrifices they were expected to make and the lack of a future perspective of peace and tranquillity. The result was a generalised apathy, accompanied by resignation and a spiritual

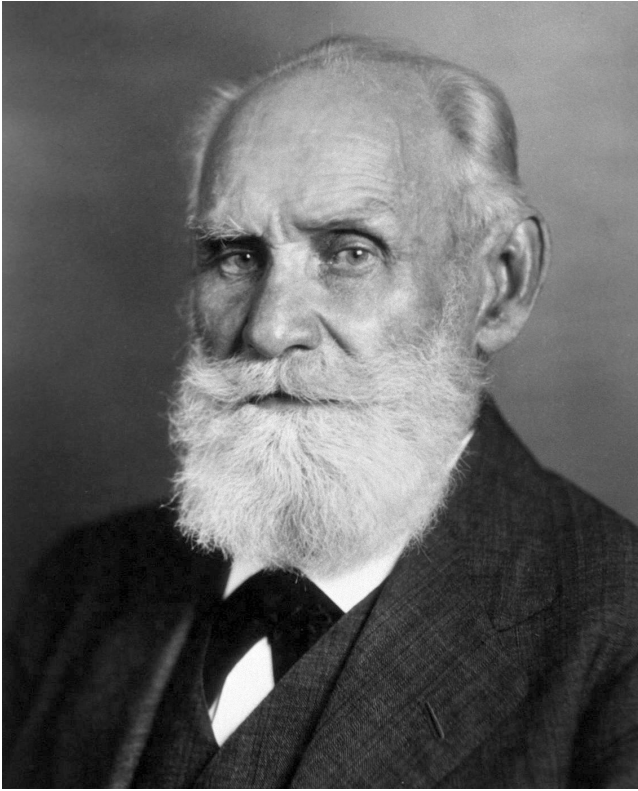


Figure 2. Ivan Petrovich Pavlov (1849-1936).

disconnection from the aims of the all-powerful Soviet state. In the midst of this dilemma, Stalin proposed that, if the Michurinist doctrine may help to produce new plant and animal species, why should not help to create a new “Soviet man”? In his search for a thinker similar to Michurin in the field of psychology, who may act as the great transformer of human nature, Stalin rediscovered the figure of Ivan Pavlov (1849-1936) (Figure 2). In his theory on conditioned reflexes, Stalin found a formula to place human nature in an environment controlled by the State.<sup>9</sup> Pavlov’s “stimulus-reaction” theory enabled him to see people as simple automatons.

This rediscovery by Stalin led to a Pavlovian revolution in the Soviet behavioural sciences.<sup>B</sup> The conditioned reflex principle became the basis of the “Soviet man”: the human being as a reactive mechanism, whose behaviour, including all higher mental processes, may be fully understood by knowing the laws of conditioning and controlled by applying this knowledge.<sup>10</sup> According

to Arshavsky,<sup>11</sup> if the Pavlovian doctrine had not scientifically supported the servile psychology that Stalin needed, the Pavlovian session would have not taken place.

#### *Pavlov: princeps physiologorum mundi*

Physiology was a prosperous scientific discipline in Imperial Russia.<sup>9</sup> Physiology laboratories and institutes were created at several universities, as well as institutions funded by private resources, such as the Institute of Experimental Medicine or the Psychoneurological Research Institute. Significant researchers including Vladimir Bekhterev (1857-1927), Aleksei Kuliabko (1866-1930), Ivan Pavlov, Alexander Samoylov (1867-1930), Mijail Shaternikov (1870-1939), Bronislav Verigo (1860-1925), and Nikolai Vvedensky (1852-1922) participated in the construction of Russian physiology. The awarding of the Nobel Prize to Pavlov in 1904 certified the prestige of Russian physiological research on the international scene.

After the fall of the Tsarist regime in 1917, the Bolsheviks identified Pavlov as the main authority in physiology in the recently created Russian Soviet Federated Socialist Republic.<sup>12</sup> Despite Pavlov’s open hostility towards the Bolshevik regime and his opposition to several aspects of its scientific policy, they supported him unconditionally. Thanks to this support, Pavlov built a constantly growing scientific empire that covered not only physiology but also psychology, psychiatry, neurology, and paedagogy. Pavlov transformed his laboratory at the Academy of Sciences into a huge physiology institute and created a large experimental station in Koltushi, a small village near Leningrad, which was considered the “world capital of conditioned reflexes.” Pavlov’s institutions became a factory producing physiologists.<sup>13</sup> During the 1920s and 1930s, most Soviet physiologists trained as interns in his laboratories, which were a mecca for Soviet and foreign scientists.

Pavlov died of pneumonia on 27 February 1936. His death marked the beginning of a fierce battle for his legacy as the founder of Soviet physiology and for his empire of

<sup>B</sup>The concept of “Michurin-Pavlov biology” emerged from the communion of the Michurinist and Pavlovian doctrines. The common basic principle of both doctrines is the principle of the unity of organism and environment. The field of application of Michurinism is agriculture, whereas Pavlovian theories apply to physiology, psychology, and medicine.

institutions. The Politburo of the Central Committee of the Communist Party, led by Stalin, designated Leon Orbeli (1882-1958) (Figure 3)<sup>14,15</sup> as the main successor.

Orbeli's scientific career started in 1901, when he joined Pavlov's laboratory at the Military Medical Academy in St. Petersburg. After completing his studies, he became one of Pavlov's closest collaborators. In 1925, he was designated head of the Academy's physiology department. Ten years later, he was appointed as a member of the Academy of Sciences, and worked as head of the biological science division between 1939 and 1948. After Pavlov's death, Orbeli directed the I.P. Pavlov Institute of Physiology of the Academy of Sciences, and the Institute of Evolutionary Physiology and Pathology of Higher Nervous Activity of the Academy of Medical Sciences. The latter academy had three other large physiology institutes: the Institute of Normal Physiology, directed by Pyotr Anokhin (1898-1974), the Institute of Physiology, directed by Ivan Razenkov (1888-1954), and the Institute of Physiology of the Central Nervous System, directed by Konstantin Bykov (1886-1959).

In 1945, Orbeli was designated vice-president of the Academy of Sciences and honoured with the title of Hero of Socialist Labour, the greatest civil distinction. In recognition of his achievements as director of the Military Medical Academy during the Second World War, he was awarded the rank of colonel general, the highest rank awarded in Russia for military medical service. Orbeli's academic power led to envy among some of Pavlov's students, including Bykov and Anatoli Ivanov-Smolensky (1895-1982). In an attempt to limit his authority, they informed the Communist Party about his scientific monopoly and accused him of drifting from Pavlov's scientific legacy. The support of the Party made any attempt to discredit him unsuccessful. This situation dramatically changed in the late 1940s.

In August 1948, the Lenin Academy of Agricultural Sciences held a session entitled "On the situation of biological sciences in the Soviet Union."<sup>16</sup> Trofim Lysenko (1898-1976) (Figure 4) attacked modern genetics, denouncing it as a bourgeois conception of the world, alien to the working class, antagonistic to Michurinist doctrine, and contrary to the path traced by Lenin and Stalin. Orbeli's position regarding this issue was ambiguous. On the one hand, he considered that genetics presented conceptual shortcomings, but on the other, he was not convinced that Lysenko's theories were

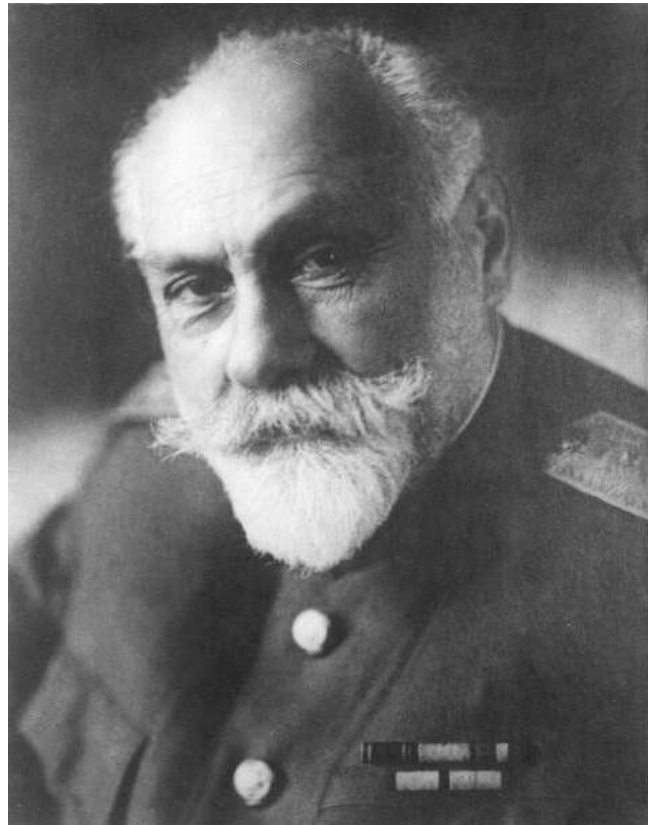


Figure 3. Leon Abgarovich Orbeli (1882-1958).

correct. This situation gave his enemies carte blanche to question his scientific authority and loyalty to the Party.<sup>17</sup>

In the defenestration of Orbeli, dean of Soviet physiology and formerly Pavlov's favourite student, Stalin saw a chance to materialise his plan to create a "Soviet man" through Pavlovian doctrine. In the summer of 1949, he met Yefim Smirnov (1904-1989), minister of health of the Soviet Union, and ordered him to prepare a scientific session to debate Pavlov's teachings and the future of Soviet physiology.<sup>18</sup> According to Smirnov, Stalin became interested in the topic after speaking to Yuri Zhdanov (1919-2006), head of the Science Department of the Central Committee.<sup>c</sup> Ironically, Zhdanov also faced significant problems after publicly opposing Lysenko.<sup>19</sup>

On 10 April 1948, Zhdanov delivered the lecture "On issues of modern Darwinism." A few days later, Lysenko wrote a letter to Stalin complaining about



Figure 4. Trofim Denisovich Lysenko (1898-1976).

Zhdanov's behaviour and accusing him of disturbing the development of the Michurinist doctrine in biology. Stalin, furious, summoned Zhdanov to his office. On 10 July 1948, he wrote a letter retracting his statements.<sup>20</sup> In the letter, addressed to comrade Stalin, Zhdanov admitted that his personal statements on Lysenko may be interpreted as the official opinion of the Party, underestimating his liability as member of the Central Committee. Furthermore, he acknowledged that his behaviour was the result of his lack of experience and maturity, and resolved to amend his mistakes. Zhdanov saw in the offensive against Orbeli and the fight for Pavlov's scientific legacy an opportunity to redeem himself before Stalin.

On 27 September 1949, soon before the centenary of Pavlov's birth, Zhdanov wrote to Stalin.<sup>21</sup> He told him that it was necessary to deeply review the attempted

revisionism of the Pavlovian legacy, but that at the same time, it was unavoidable to do away with the monopoly of the academician Orbeli. Zhdanov thought that Pavlov's scientific legacy was not being adequately developed by the Soviet physiologists, and that Pavlov's successor, Orbeli, held too much power. On 6 October, Zhdanov received Stalin's reply, in which he unceremoniously raged against Orbeli (see Appendix):

In my opinion, the academician Orbeli was responsible for the greatest harm to Pavlov's teachings. Self-righteously calling himself the main student of Pavlov, Orbeli did everything possible and impossible to discredit Pavlov and slandered him with his reservations and ambiguities, the dishonourable silencing of Pavlov, and the cowardly camouflaged attacks against him. The sooner Orbeli is unmasked and the more his monopoly destroyed, the better.<sup>22</sup>

Together with Orbeli, Stalin also points to Beritov (Ivan Beritashvili) and Stern as enemies of Pavlov's teachings, although he also mentions that they are less dangerous. In 1948, Lina Stern (1878-1968)<sup>23</sup> was accused of antiscientific tendencies, of underestimating Pavlov's ideas, and of being in contact with the West; she was imprisoned from 1949 to 1952. Ivan Beritashvili (1885-1974)<sup>24</sup> believed that Pavlov's theories were not sufficiently sophisticated to interpret neuronal processes. After the Pavlovian session, Beritashvili was dismissed from his academic positions and deprived of his scientific work.

In the letter, Stalin orders that a conference of physiologists be organised to examine the development of Pavlov's legacy, and at the same time supports Bykov as Pavlov's successor. Zhdanov was in charge of preparing the event, with the support of the minister of health, Smirnov, and the president of the Academy of Sciences, Sergey Vavilov (1891-1951). Soon after, Stalin sent a brief note to his close collaborator Georgy Malenkov (1901-1988)<sup>25</sup>: "I am sending a copy of my letter to Yu. A. Zhdanov, as well as a note to Zhdanov on the topic of the academician Pavlov and his theories. I believe that the Committee should fully support this cause."

<sup>20</sup>Yuri Zhdanov was the son of Andrei Zhdanov (1896-1948), close collaborator of Stalin. In 1949, he married Stalin's daughter, Svetlana Alilúyeva. One year later, their daughter Katya was born. They separated in 1952

### *The Pavlovian session*

Between 28 June and 4 July 1950, a session was held at the House of Scientists in Moscow to discuss the physiological teachings of the academician I.P. Pavlov.<sup>25</sup> The session was organised by the Academy of Sciences and the Academy of Medical Sciences of the USSR, and received more than 1400 attendees.<sup>D</sup> The session was inaugurated by Sergey Vavilov,<sup>E</sup> president of the Academy of Sciences, and Ivan Razenkov, vice-president of the Academy of Medical Sciences. Subsequently, Bykov presented his speech “Development of the ideas of I.P. Pavlov (tasks and perspectives)” and Ivanov-Smolensky presented “Lines of development of I.P. Pavlov’s ideas in the pathophysiology of the higher nervous activity.” The aim of their interventions was not to discuss science, but to slander several of Pavlov’s students as deviationists, anti-Marxists, idealists, cosmopolitans, and reactionaries.

In the opening speech, “The development of Soviet physiology since Pavlov’s death,” Vavilov warned that physiology had drifted from the course plotted by the great Russian scientist. He considered it a mistake to think that Pavlov’s teachings were a simple chapter in the development of physiology. Rather, according to Vavilov, it is more correct to divide the history of physiology into two periods: the pre-Pavlovian stage and the Pavlovian stage.

Vavilov’s position was supported by Razenkov, who encouraged attendees to oppose the reactionary idealist tendency in physiology, as did Lysenko with his fight against modern genetics.<sup>F</sup> Like Vavilov, Razenkov believed that there had been a change of direction from

the course plotted by Pavlov, directly pointing to Orbeli, Anokhin, and Speranski.<sup>G</sup>

The following speaker, Bykov,<sup>H</sup> asserted that the history of physiology may be divided into two periods: pre-Pavlovian physiology, derived from the idealist physiology of Western Europe, and the Pavlovian materialist physiology. As pointed out by Bykov, it is understandable that physiology in Western Europe had not properly developed, as it is not possible to do this in a capitalist system. In contrast, Russian physiology, based on dialectical materialism, had been able to develop in the correct direction. Under the shelter of Pavlov, Russian physiology flourished within the Soviet system. Bykov continued his speech by praising the master’s teachings. After discovering conditioned reflexes, Pavlov proceeded to study higher nervous activity. Unfortunately, some students did not follow in his footsteps, and got lost in irrelevant questions. Even worse, they based their theories on the thought of foreign physiologists. Bykov informed attendees that, although some students of Pavlov, such as Ivanov-Smolensky and Esras Asratian (1903-1981), were on the correct path, others, including Orbeli and Anokhin, did not adhere to his methodology and conceptual framework. Orbeli, according to Bykov, showed his predilection for the false idealist sensory theories of Ewald Hering and Wilhelm Wundt, daring to establish similarities between their ideas and those of Pavlov, thus suggesting an equivalence between idealist and materialist positions. Furthermore, Bykov continued, Orbeli’s collaborators Ginetsinski and Lebedinski had written a medical manual praising the work of Western physiologists and dismissing Pavlov. Regarding Anokhin, Bykov expressed his hope that he could mend his mistakes and, following the footsteps of Pavlov, contribute to the growth of Soviet science.

The next speaker was Ivanov-Smolensky. In his speech, he agreed with Bykov that not everything in the development of the theory of higher nervous activity was as it should have been after the death of Pavlov. He named Anokhin, Kupalov, and Orbeli as the main culprits.

He also accused Anokhin of insisting that Pavlov’s concepts were inappropriately presented and required improvement, criticising his explanation of conditioned reflexes, and suggesting that Pavlovian theory was isolated from foreign neurology. According to Ivanov-Smolensky, Anokhin supported Sherrington’s concept of integration and believed that cortical inhibition, as

<sup>D</sup>Transcripts of the interventions in the session are available online, in Russian: <http://asenic.ru/ocrlab/pablosession1950.htm> (accessed: March 2022).

<sup>E</sup>Sergey Vavilov was the brother of Nikolai Vavilov (1887-1943), one of the main biologists of his time and a pioneer in modern genetics. Imprisoned in 1940 due to his opposition to Lysenko’s ideas, Nikolai Vavilov died on 26 January 1943 in the prison of Saratov (Russia). The interventions of Sergey Vavilov in the Pavlovian session were personally supervised by Stalin.

<sup>F</sup>In 1948, Razenkov belonged to the committee that expelled Lina Stern from the Academy of Sciences. The Party considered his attitude toward her to have been far too permissive.

<sup>G</sup>Aleksei Speranski (1888-1961) retained his academic positions after publicly apologising for his mistakes and declaring that he was a staunch supporter of Pavlov’s teachings. In 1938, he was also criticised by Aleksandr Bogomolets (1881-1946) during a conference on ageing and longevity held in Kyiv. This conference represents a pilot test for future scientific purges.

<sup>H</sup>Bykov worked as a medical officer in the White Army during the Russian Civil War (1917-1923). This dishonour put him in a delicate position, as he was forced to accept Stalin’s plans.

Pavlov understood it, did not exist; this conceptual approach diminished the importance of his teachings. He subsequently attacked Petr Kupalov (1888-1964) and his ideas on shortened conditioned reflexes, internal stimulation, and reflexes without beginning or end.

Ivanov-Smolensky's next victim was Orbeli. He was convinced that the latter's view of the relationship between subjective experience and objective reality was anti-Pavlovian. Pavlov, said Ivanov-Smolensky, did not deny subjective experience and studied it using objective methods. Subjective experience was equivalent to the higher nervous activity of the organism that reveals the external world, ie, the environment. The subjective sphere overlaps with the objective world. In contrast, Orbeli divides the subjective and objective perspectives and interrelates them. Through this division, he adheres to the approach of psychophysiological parallelism, defending the idea that subjective data may be used to verify the laws of higher nervous activity. In the view of Ivanov-Smolensky, Pavlov's findings, obtained with objective methods, did not need to be verified with subjective data.

On 30 June, Orbeli responded to the accusations made against him. He explained that, after Pavlov's death, he decided to explore the ontogeny of reflexes in the embryo and in the early periods of postnatal development. The results confirmed the laws formulated by the master. Subsequently, and in line with Pavlov's theories, he studied unconditioned reflexes, as they formed the basis of complex activities in the development of human beings. Furthermore, he asserted that psychological and conscious experience, based on physiological processes, should be studied, as it was real and neglecting the reality of consciousness made no sense. In this line, he created a laboratory to study sensory processes. He claimed that both Pavlov and Lenin considered sensory experience to be the prerequisite for the formation of materialist epistemology and dialectics.

Anokhin spoke on 3 July. He admitted that his 1945 work *From Descartes to Pavlov. Three hundred years of the reflex theory* described contributions to the knowledge of conditioned reflexes by some historical pioneers. He confessed he was wrong to call them historical pioneers, as they mentioned phenomena that were only tangentially related with conditioning. Anokhin stated that the only valid theory of higher nervous activity was that postulated by Pavlov.

On the last day of the session, Orbeli spoke again. He admitted the lack of tact and political correctness shown in his previous lecture, at the same time as he acknowledged his lack of experience in this type of debate and promised to be more open to self-criticism. He accepted that the critiques made against him were justified and that he had not properly organised the work of Pavlov's students. Anokhin admitted that some of his statements on questions related to Marxist-Leninist philosophy were not well formulated, giving the impression that he no longer accepted historical materialism. Orbeli gave thanks for the corrections of his erroneous ideas and expressed that he hoped that philosophers would help him to discard them in the future. He also admitted not having defended Pavlov's teachings against the attacks of foreign critics and revisionists and not having correctly opposed the idealist theories and conceptions of the bourgeoisie, and expressed that he fully agreed on the need for a strong Bolshevik approach in the fight against revisionist critiques of Pavlov's work.

### Conclusions: consequences of the Pavlovian session

In the closing ceremony of the Pavlovian Session, Presidium members of the Academy of Sciences and Presidium members of the Academy of Medical Sciences were encouraged to implement, in the shortest time possible, the necessary organisational and scientific measures for the development of the theoretical foundations and the incorporation of Pavlov's teachings into the practice of medicine, paedagogy, physical education, and livestock farming. To this end, they ordered a review of the scientific working plan in physiology and related medical disciplines (internal medicine, hygiene, psychiatry, neuropathology, etc) and a restructuring of the physiology teaching programmes used in universities, based on Pavlovian physiology.<sup>1</sup> The last paragraph of the lecture includes a call to all those working in the field of physiology and medicine to creatively develop Pavlov's great teaching for the benefit of the citizens.

A few days after the closure of the Pavlovian session, the Central Committee of the Communist Party ordered

<sup>1</sup>In 1951, the Scientific Council on Problems of the Physiological Theory of Academician I.P. Pavlov was created. Its aim was to ensure that research by Soviet scientists was consistent with Pavlov's teachings. The Council ceased its activities in 1956.

the dismissal of Anokhin as director of the Institute of Normal Physiology of the Academy of Medical Sciences. The same year, he was appointed as head of the Physiology Department of the Medical Institute of Ryazan and, one year later, as head of the Laboratory of Physiology and Pathology of the A.V. Vishnevsky Institute of Surgery. Orbeli suffered a worse fate. He was accused of possessing an intolerable monopoly that contradicted the spirit of Soviet science and interfered with its free development.<sup>21</sup> With the aim of reverting this situation, he was decommissioned as director of the I.P. Pavlov Institute of Physiology and the Institute of Evolutionary Physiology and Pathology of Higher Nervous Activity.<sup>26,27</sup> Both institutes were merged to form a new Institute of Physiology under the direction of Bykov. The Moscow headquarters of the Institute of Evolutionary Physiology and Pathology of Higher Nervous Activity became the new Institute of Higher Nervous Activity, with Asratian as director and Ivanov-Smolensky as vice-director. With Orbeli marginalised and neutralised, there was nobody to challenge the plans of the Central Committee of the Communist Party. With the death of Stalin in 1953, his situation began to improve. In 1955, Orbeli was designated director of the I.M. Sechenov Institute of Evolutionary Physiology and Biochemistry of the Academy of Sciences, a position he held until his death in 1958.

The internal battles for the control of Soviet physiology did not cease after the Pavlovian session. In June 1952, the Academy of Sciences dismissed Asratian from his academic positions, on the recommendation of Zhdanov. He argued that Asratian was still bearing the weight of Orbeli's mistakes and that he was using his position to hire Orbeli's collaborators. That same year, Zhdanov warily observed how Bykov supported reconciliation with those opposed to Pavlov. His role in the Pavlovian session enabled him to keep his position as the main representative of Soviet physiology.

Grigorian, a Russian historian, masterfully synthesises the impact of the Pavlovian session in the Soviet culture of the second half of the 20th century<sup>28(p108)</sup>:

The 1950 session not only prevented the development of physiology and medicine, but was a great blow to the moral foundations of science. It destroyed the futures of many scientists, and distorted the psychology of the youth, by encouraging their servility and immorality. It distorted the spirit of the physiology of higher nervous activity and

disseminated dogma, conformism, and that monolithic spirit that is so inappropriate in science. The session brought alienation, division, and confrontation between scientists from different countries, hindered the development of international scientific cooperation, and destroyed the tradition of cooperative, progressive scientific collaboration in the international scientific community.

### Conflicts of interest

The authors have no conflicts of interest to declare. This study has received no public or private funding.

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